THE BUILDER

INCORPORATING

"ARCHITECTURE" AND "THE BRITISH ARCHITECT"

VOL. CLXIII OCTOBER 16 1942 NO. 5202

A FIRM FOUNDATION

It is a platitude to say that we cannot make a better world, nor lay the foundations of a prosperous future, merely by pious resolutions and, presumably, well-meaning but vague speeches. In theory such a proposition is indisputable, but in practice, as so often in our national life, there would appear to be a notable lack of planning, of any definite foundation upon which the new world can be erected. Of nothing can this be said more clearly than in the case of our own industry. Of vague generalisations, of pious hopes, we have an amplitude, but for a definite "post-war" programme we search in vain, whether it be in the speeches of Ministers or officials, or the leaders of the industry itself. In particular there is one problem which lay at the root of the majority of our pre-war troubles concerning which there would appear to be almost a conspiracy of silence. It is a problem, basic and peculiar, which has afflicted, and still afflicts, the building trade alone of all the great industries, viz., that entry into it is extraordinarily easy, and as a necessary consequence that to earn a living in it is extraordinarily difficult.

In the other heavy industries a new entrant requires a considerable amount of capital, and even then must produce some proof of technical capacity before being entrusted with orders. He cannot, moreover, obtain credit without providing some proof of financial soundness. In the building industry new firms have started and still do start with a purely nominal capital, obtain credit with ease, and find no difficulty in tendering for and obtaining quite considerable contracts, without, moreover, providing any proof of a technical capacity to carry them out. It appears to be taken for granted by merchants, architects and building owners that new and untried firms are bound to be successful, and also quite capable of carrying out work both expeditiously and properly. The result is, as might be expected, that a large number of these mushroom firms are disappointed in the result of their trading. In time they disappear, but not before, by desperate cutting aided by the simple expedient of gambling with other people's money, they have lowered prices all round. For a time the position is more stable, but as soon as there appears to be any considerable building programme in sight, up spring new firms, very often the old under new names, which so increase the number competing that prices inevitably come down once more.

The absurd result may be, and has occurred, that while the country as a whole is enjoying prosperity, and the building industry with it—as far as both the professions, manufacturers and merchants are concerned—the builders themselves are struggling with low prices and depressed conditions. This has been the condition of affairs between the two wars, and there is no reasonable prospect that it will be any different in the period after this war, which everyone is hailing as a future time of prosperity for the building industry. So it doubtless will be for the architect, the surveyor, the manufacturer, the merchant and the operatives—but not for the builder, unless some steps are taken to limit his numbers. Without some firm foundation of security of tenure, some reasonable guarantee that he may hope to carry on his business and earn a reasonable living, the builder can never know a continuous prosperity. His life will be a succession of "swings and roundabouts," and, as in the past, he will find that what he gains on one he will lose on the other. As he loses in security, so in consequence will he lose in status. There is indeed a danger that he may wake up one day to find that he is no longer necessary. The master builder of the last three generations is a modern innovation, and even to-day in Scotland and the North is not universal. He may disappear as easily as he arose, for the modern habit of widespread sub-contracting may facilitate such a disappearance. His survival in the future is likely to depend on his value to the community, and that value again on his knowledge, experience and technical capacity, and those qualities can never be developed nor maintained in a trade where there is no security and successful competition merely a matter of price. The gambler has neither time nor money to learn a trade. That is the problem. Can anyone, looking back or regarding the condition of the trade at the moment deny its gravity?

What is the solution? At one time we ventured to hope that Government action might assist—that the registration of builders was the beginning of an organised attempt both to grade the industry and to limit entry. Struck by the number of new building companies which were and are being registered we made inquiries and were informed that there was no intention of limiting private industry, even though all man-power and most materials were being mobilised by the State. These new firms, since at the moment they can do but little, are obviously staking their claims for a new "Gold Rush," in which, as before, the prizes will be few and the disappointments many.

If we lean on the idea of Government intervention, we may be leaning on a broken reed. Can, then, the industry do nothing for itself? The existing state of affairs, after all, is bad for all who are partners in the industry. Should not the leaders of the industry face up to this problem? Let them, we would suggest, set up by agreement a certain standard both financial and technical for a master builder; let them then approach both the manufacturers and the merchants and get them to agree not to give credit to any firm not complying with this standard. Let them not be afraid of being accused of forming a trust—the whole world around them has either done so or is about to do so. The Gadarene swine were almost certainly individualists, and their behaviour, surprising at that period, would not be so now. They were merely trying to get to the bottom of the list first.

The comment, of course, may be made, "All this is very sad for the builders, but, after all, does it matter to anyone else?" This is the very question which the builders have to find an answer to, and it is becoming increasingly evident that it is not going to be easy. At the moment, for all practical purposes, the Government is the only employer, and the bulk of the so-called building work now being carried out is really civil engineering and not building work at all. As a result, the majority of building firms are in a state of suspended animation. The very qualities which many have of a widespread technical experience and a capacity of producing good work are useless; a high standard is not required. The essential quality is speed in the erection of what are, after all, temporary buildings. Nothing can be done now, but immediately the war is over the problem will become acute, and unless some foundations are laid, some plans made, a state of chaos will arise.

NOTES AND NEWS

Rates After the War.

It is to be hoped, writes a correspondent, that the Ministry of Works and Planning is considering the effect of the rating system on our post-war building. It is appropriate at this time to remind those who are investigating problems of reconstruction that a few months before the war important evidence on this question was presented to the Departmental Committee on Valuation for Rates by the Building Industries National Council.

Although, of course, the war has fundamentally altered the outlook, it is as well that we should not forget that, without the building industry, our local government system would be financially bankrupt. Upon one particular form of property, namely buildings, is levied possibly 90 per cent. of the total rate revenue of the local authorities of this country. This is a sum which the products of no other single industry are called upon to bear.

Before the war the total annual income of local authorities in England and Wales amounted to £481,300,000. Of this £164,900,000 was derived from local rates. Buildings of all kinds bear something in excess of 90 per cent. of the total rate burden. The Building Industries National Council pointed out that the greater part of this was concentrated on houses and argued that the reduction of the burden of rate charges on the one hand, and mortgage interest on the other, would do more to stimulate the construction of small-type houses than any other orthodox action.

It is hoped that this aspect of post-war building is not being overlooked by the officials of the post-war building Directorate under Lord Portal.

The New View of St. Paul's.

In a lecture at the Cathedral on October 7, Canon S. A. Alexander referred to the new view of St. Paul's revealed as a result of enemy action. What London needed for the control and direction of its traffic, as well as for other reasons, he said, was some such scheme of town-planning as Wren contemplated. Not only had they been dealing with the problem piecemeal, without reference to any such scheme, but for purely financial and commercial reasons they had permitted immense structures out of all proportion to the buildings round them, such as Faraday Building, to rise along the banks of the Thames to obscure the views of the great cathedral. How far the war had simplified and how far it had intensified, the difficulties yet remained to be seen.

Rebuilding Devastated Europe.

Building experts from the occupied countries of Europe are already making plans for the reconstruction of their countries after the war. A group of them, who are in touch with the Directorate of Post-war Building of the Ministry of Works and Planning, are to meet representatives of the London Master Builders' Association to-day (Friday, October 16), to discuss the methods and mechanical plant used by British builders. Among those taking part in the discussion are General D. Botzaris, representing Greece, Mr. Cwynarski, representing Poland, and Mr. F. Suchy, representing Czechoslovakia. The deputation from the London Master Builders' Association meeting them consists of Mr. W. E. Rice, the President, Major Leslie Shingleton, Mr. D. C. Burgess and Mr. R. F. Hill.

London Builders' Rescue Squads.

Mr. W. E. Rice, O.B.E., President of the London Master Builders' Association, and Mr. V. Sulston, Secretary of the London Regional Council, N.F.B.T.O., were among the official party at London Region headquarters of the Civil Defence Services at the finals of a competition to test the efficiency of the rescue services, both heavy and light. Trophies presented by Admiral Sir Edward Evans and Colonel Wallace were awarded to the winning teams, and badges presented by Sir Ernest Gowers, Senior Regional Commissioner, were handed to the personnel of the winners and the runners-up.

Sir Ernest Gowers, who presided, referred to the valuable work of the London Master Builders' Association and the National Federation of Building Trades Operatives in the early days of Civil Defence, and said that they had been together responsible for forming in 1938 the original rescue squads, which were later incorporated into the Civil Defence scheme when it was established. It was mainly due to the foresight, energy and patriotism of these organisations that the rescue services in London had been built up.

The Theatre Royal, Bristol.

The Theatre Royal at Bristol, whose fate has recently been much discussed, is likely to be saved and kept, not as an architect's museum-piece, but as a living, working theatre. C.E.M.A. has offered to take up a lease of the theatre, as well as putting it in working order. It could then be used as a recipient of touring first-class companies, of which Bristol, having lost its Prince's Theatre, is in great need.

British Standards Institution.

The annual general meeting of the members of the British Standards Institution will be held at the Institution of Electrical Engineers, Storey's Gate, St. James's Park, S.W.1, on Thursday, October 22, at 12.15 p.m. Sir Percy Ashley, K.B.E., C.B., Chairman, will preside.

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CORRESPONDENCE

[Whilst we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

Remodelled Cities.

To the Editor of *The Builder*.

Sir,—It is indeed gratifying that my articles on the "Highway Grid" system should be so favourably received in your leader [October 2], and if you will permit me to answer two of the constructive criticisms I trust it will not be thought that I am not fully appreciative of the reasoned consideration and large degree of agreement evidenced.

The essence of the scheme is that a new system of through roads should be superimposed on our present system based on railway "point to point" design, and that the vertical by-pass is generally more efficient than the horizontal. For instance, Ealing is by-passed on the north by Western-avenue, and through its centre by the Great Western Railway which, although nearly one hundred years old, is, most people will agree, by far the more efficient. No one would suggest that the main line should have sidings or "draw-in" between the stations for local private use. Similarly, to provide a "draw-in" between the five access points of my suggested cross of elevated roads for London would seem as detrimental to it as the sidings would be to the main-line railway.

The elimination of light to the lower road is bound to meet with criticism, but the shop window is the salesman's proscenium, and I feel convinced that the mixture of day and artificial light would be as undesirable in the shopping arcade as in the matinée theatre, and that the foyer under Piccadilly-circus would have been distinctly marred had there been pavement lights above, as in a public lavatory.

The admission of an insufficient amount of daylight, I feel, produces a sense of gloom which is lacking from complete artificial illumination, but this is a minor point in comparison to the underlying principle which I attempted to condense into my first article.

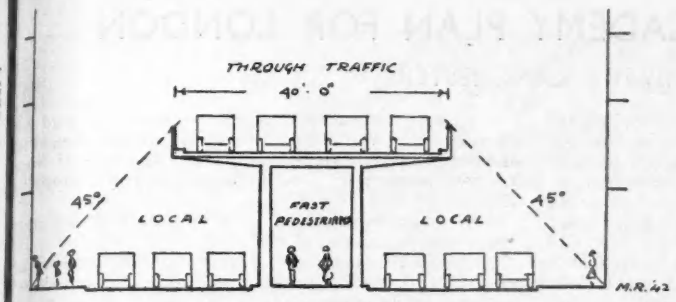
John E. M. Macgregor.

Shalford, Surrey.

To the Editor of *The Builder*.

Sir,—The proposal is frequently put forward that main streets in large towns should be entirely covered over, with through traffic streets running overhead. This postulates full-time artificial lighting for the lower street and for the shops on the ground floor. Any such arrangement would be diametrically opposed to one of the town-planning principles we have been urging for years, *i.e.*, the importance of providing all possible sunlight and fresh air in our cities.

Exigencies of traffic have, it is true, provided tube railways, but the tubes bring travellers, and only travellers, into artificial conditions for the shortest time necessary to get them from one place to another. If streets at ground level are to be made into tubes so that daily life is carried on in artificial conditions, then it seems to me that we shall be sacrificing public health, amenity, and the natural craving of humanity for sun and air, to considerations of traffic which do not, and never will, justify such sacrifices. One



(See Mr. Manning Robertson's Letter.)

add that the noise and petrol fumes these "underground" shopping streets ld be unendurable.

The only conditions under which such cheme would appear to be admissible ld be where—as in the diagram—the d was of sufficient width to allow the rhead road to cover only the centre of space, as in the elevated railway. is would give cover to pedestrians in or hot weather, but would leave clear ess to the sky on either side, with one- y traffic.

MANNING ROBERTSON.

10, Raglan-road, Dublin.

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t-Plus v. Other Contracting Methods.

TO THE EDITOR OF *The Builder*.

SIR,—May I say, firstly, that I have preciated parts of all the arguments, d believe the cost of surveying staffs likely to affect greatly the total cost any type of contract; the speculative ment in present-day tendering, how- r, would appear real.

In peace time the majority of clients sh to know the extent to which they committing themselves; in so many tances a fixed sum is available for the nstructional work contemplated, which not be greatly exceeded. The contrac- r is the only person who can satisfy this ition, and no volume of objection to system was prevalent before the war, d it is doubtful if there would be now der similar conditions.

In war, the first consideration would pear to be speed, and the second to oid waste of public money. It appears likely that the former is best served ile the contractor has to consider his ts closely. A large part of the labour w being used in the industry has little no pre-war experience and is of rather r quality, due partly to this and physi- l condition. In peace, a contractor would lect his labour, but in war this hardly ms desirable, even if permissible, when available labour should be used in the tional interest.

As to the contractor's inefficiency, the ll of the Services has undoubtedly bbed the industry of much of its super- ory staff, and the volume of work dertaken, particularly in thinly popu- ed areas, must place a great strain upon ntractors to supply staff with sufficient perience, while it would appear to be e duty of Government representatives at s, and within their powers, to deal th any inefficiency or negligence on the rt of the contractors. Accordingly, sponsibility for instances that have given e to outcry in Parliament must seem- ly be shared.

With regard to schedules of prices pre- red by Government Departments, these doubt have a purpose to serve, other- se time would not be spent on their eparation, but it is doubtful if this principle is sound or such as would be accepted by other industries. It appears difficult to prepare a schedule of prices applicable to the whole country while conditions vary from one area to the next, or to adjust this accurately by block percentage additions or deductions for the various trades. If schedules must be used it would appear much sounder in principle to allow each contractor to prepare his own, based on his own experiences, resources and equipment, as in other industries.

It is doubtful if a builder goes into business to accept risks, as is suggested; rather it would appear that up to the present he has not been able to practise his craft without. The Government and the public are prepared to pay the manufacturers of building materials their cost plus a reasonable profit, the professional side of the industry their fees, based on the same principle, and the employees their cost of living, plus a margin. One can hardly complain, therefore, if a contractor feels he should enjoy the same security.

Before condemning cost-plus and the efficiency of the contractor, would it not have been fairer to be assured that the remaining elements of the industry which affect this were efficient, and to have given the contractor more control over those elements, rather than remove the greater part of what little he enjoyed before the war?

One can hardly believe that many reputable contractors would abuse any confidence placed in them to the detriment of their reputation any more than other sections of the industry, and should they do so the necessary action is obvious.

Stamford, Lincs. E. D. IRESON.

TO THE EDITOR OF *The Builder*.

SIR,—It is with great interest that I am watching the "battle of wits" between a contractor's surveyor (Mr. R. V. Boughton) and the so-termed professional surveyors.

In your issue of October 2, "Ministry Surveyor" has certainly looked through the wrong end of the telescope when he states that Mr. Boughton's 7½ per cent. should be 1 per cent. The 7½ per cent. was clearly used in connection with a staff army composed of the contractor's staff and professional surveyors on the employer's side, preparation of bills of quantities and many other items. Indeed, I consider that 7½ per cent. is on the low side.

"Ministry Surveyor" considers that Mr. Boughton may be having "a crack at the professional surveyors"; surely contractors' surveyors fall under the category of professional surveyors.

A reference has been made in the correspondence to a contractor's business being based on taking risks; this is only true under normal conditions, and one of the strong contentions is that conditions are not normal.

A good analogy between contractors' and quantity surveyors' risks of to-day may be evidenced by this: if quantity surveyors have to prepare accurate bills of quantities with their present-day "labour" troubles, would they like to know that any mistakes in their quantities would entail financial loss to them?

Quantity surveyors are in a much safer position financially by having only to prepare approximate quantities and schedule.

ESSEX BUILDER.

TO THE EDITOR OF *The Builder*.

SIR,—Having read the letters on this subject from Mr. Tisdall and "Ministry Surveyor" [*The Builder*, October 2], I must state that we contractors have a good champion in Mr. R. V. Boughton, whose views are obviously well founded.

"Ministry Surveyor" makes a very serious mistake in his statement that Mr. Boughton computed 7½ per cent. as a cost of contractor's staff on a job. If "Ministry Surveyor" will refer to Mr. Boughton's first letter he will find such 7½ per cent. includes practically the major part of a contractor's head office staff and work staff and the employer's surveyor's staff, as well as other items. The 7½ per cent. is certainly near the mark, and to try to water it down to 1 per cent. is most unfair.

The reference to the non-technical Press does not affect anyone who is sensible to building matters; contractors prefer the cool brains of the technical Press to guide them.

As to the outcry at the commencement of the war about cost-plus methods, Mr. Boughton ably covers this point by conditions as to efficient supervisory staff being engaged by the employers; and if Mr. Tisdall and "Ministry Surveyor" are right in their views, then it is fair to ask "What were bodies doing to permit such 'wickedness' and 'jerry building'?"

KENTISH BUILDER.

COMING EVENTS

Tuesday, October 20.

ASSOCIATION FOR PLANNING AND REGIONAL RECONSTRUCTION. Mr. Edric Neel, A.R.I.B.A., on "Plans for Three Experimental Houses." 32, Gordon-square, W.C. 5.30 p.m.

HOUSING CENTRE LUNCH. Mr. Max Lock on "Education for Technics and Planning." 13, Suffolk-street, S.W.1. 1 p.m.

Thursday, October 22.

BRITISH STANDARDS INSTITUTION. Annual General Meeting. At Institution of Mechanical Engineers, Storey's Gate, S.W.1. 12.15 p.m.

Friday, October 23.

ARCHITECTS' REGISTRATION COUNCIL. Quarterly Council Meeting. 66, Portland-place, W.1. 2 p.m.

Saturday, October 24.

"HOMES TO LIVE IN" EXHIBITION. At Orpington. Miss E. Denby will open Exhibition.

Tuesday, October 27.

ROYAL SANITARY INSTITUTE. Mr. W. T. Creswell, K.C., will deliver a Chadwick Public Lecture on "Forensic Aspects of Wartime Public Health Legislation." 90, Buckingham Palace-road, S.W.1. 2.30 p.m.

Thursday, October 29.

FEDERATION OF GREATER LONDON MASTER BUILDERS. Quarterly Meeting. Mr. W. T. Creswell, K.C., will speak on "Building Contracts in Wartime." Connaught Rooms, W.C. 2 p.m.

THE ROYAL ACADEMY PLAN FOR LONDON

By H. V. LANCHESTER

THE ROYAL ACADEMY appointed its Committee for replanning London in January, 1940, before the first serious air raid damages occurred, and could hardly have then realised what opportunities these would offer for comprehensive reconstruction. As its work continued the range of its possibilities expanded, and we can now see how great these are in the remaking of our metropolis as a "New and Nobler City." This development of its work is indicated by the Committee's statement that the raids have only brought about an additional incentive to a general improvement in the planning of London which many others besides its own members have long felt to be overdue. Even at the present stage of the undertaking it is not claimed that the plans have reached finality; they are still in a provisional state, and are subject to amendment at various points. Some alternatives are given, and in other cases decisions await further information.

The limitations that the Committee has given to its programme must be stated in order that their intention should be fairly appreciated. Firstly, only the central area is dealt with, including the City, and not extending as far as the L.C.C. boundary. Secondly, the attitude is, as might be expected from the R.A., mainly æsthetic, rather on the lines of the Paris "Artists' Plan" prepared after the French Revolution at the end of the eighteenth century; social and economic considerations are regarded as subsidiary.

At the same time consideration has been given to redistribution of functional groups and to the demands for traffic facilities, but these are in the main subordinated to the demands of civic beauty and dignity; the attitude displayed throughout being that of the artist rather than that of the scientific town planner, and on this ground the proposals, though full of interesting features and attractive suggestions, cannot be regarded as, and are not in fact claimed to be, a complete and final solution of the problem of London's future.

This problem has yet to be solved, and several bodies are at present at work on it; the great merit of the Royal Academy contribution is its emphasis on the need for design in street planning and the co-ordination of the building masses; factors which have, during the past eighty years, been almost entirely neglected with deplorable results. Having this aim in view, it is indicated that a complete revision of Building Acts and Regulations is necessary, taking account of the relation between the heights of buildings and the width of streets and proportion of open spaces. The frequent ratio of height equal to the street width is condemned, as is illustrated by the failure in proportion of Kingsway and the reconstructed Regent-street. Control of design for buildings facing square and other open spaces, such as was exercised in the past on certain big estates, is demanded as an architectural necessity. The imposition of a standard height for buildings is undesirable, as the decision in regard to t should primarily depend on zoning, greater height allowed in certain areas according to the general design a street as part of a well-planned and well-proportion scheme.

We can now proceed to a general description of the m important proposals.

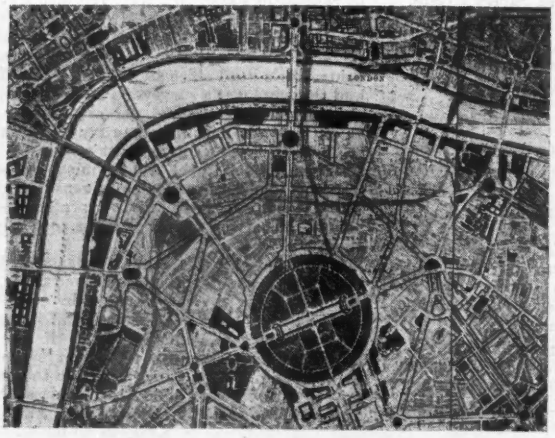
The co-ordination and simplification of London's ma line railway services is visualised, and the plan shows removal of the more intrusive terminal stations, with th viaducts and bridges, and the substitution of new ones more worthy design, with dignified approaches and am open space. These are arranged to open on to a wide r road, as follows: Fenchurch-street at Whitechapel; Liv pool-street and Broad-street as a joint station east of Sho ditch; King's Cross, St. Pancras and Euston grouped the north-east of the present Euston Station; Marylebo Paddington and Victoria in approximately their pres positions; while Waterloo and London Bridge are set b to Nine Elms and near Bricklayer's Arms. A plan p viding for the removal of Cannon-street and Charing C and the line to St. Paul's and Holborn stations must warmly commended, and the whole design makes attractive pattern. All the same it is very doubtful if course adopted would enhance the convenience to public, unless the scheme were supplemented by anot providing additional facilities for local and suburb traffic; as nearly all the new positions for termini are far from the busy centres. It is obvious that there alternative treatments of this problem capable of afford the architectural dignity demanded.

We may regard as next in importance to this part the plan the adoption of embankment frontages to b sides of the river as far eastward as Tower Bridge, as intimately related to this, the reconstruction of the C areas so greatly damaged; the important centres St. Paul's Cathedral and at the Mansion House. In t first case, St. Paul's Churchyard is greatly enlarged, w broad avenues running north, south, and westward on t axes of the central dome. An alternative westward narrower footways on this axis, with the preservation of existing vista up Ludgate Hill and a balancing diagon route running towards Blackfriars. An important very valuable road is planned running north-east fro St. Paul's Churchyard to London Wall and Finsbu Square. Where this passes behind the Guildhall an op square is formed giving access to a new Mansion Ho as part of the civic group, and this would permit of t removal of the present Mansion House and adjacent blo to provide a large open "place" at this point—n opposite the Bank of England.

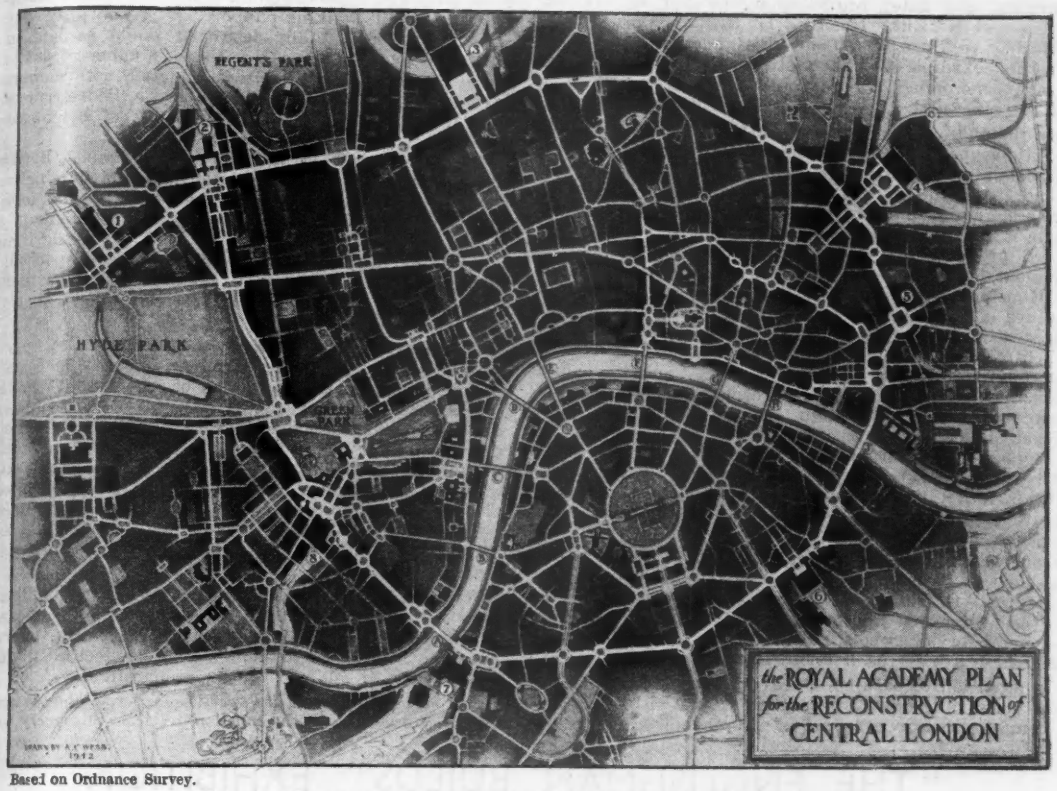
The southern avenue from St. Paul's would extend the river Thames, and the embankment frontages east a west of this are regarded as offering suitable sites for t Halls of the City Companies, thus ensuring a dignifi treatment for this range of buildings. On the south si of the river the planning is less happy, the frontage lin being broken up, thus losing the effect of the noble curv sweep of the river between Waterloo and Blackfri bridges.

The area south of the river embracing Lambeth, Sout wark and Bermondsey is drastically replanned, and was hoped that space could be allotted here for an aer drome capable of taking long-distance planes. Though such an aerodrome might be afforded, the demand the experts for very restrictive height regulation in a wi zone around it was regarded as precluding its adoption Possibly the raising of the site by some 50 ft. might m this difficulty, but it is, of course, very doubtful if s a solution would be economically practicable.

Passing to the West End, a number of striking improv ments, dealing more particularly with specific centres, a worthy of note. The approaches to the proposed Charin Cross Bridge receive careful attention; Covent Garde market has, of course, to go, providing a forecourt to new opera house; the dignified design of Piccadilly Circ involves the abolition of Shaftesbury Avenue, but a m regular street plan is substituted. Good forecourts a also provided for the British Museum and that at Sou

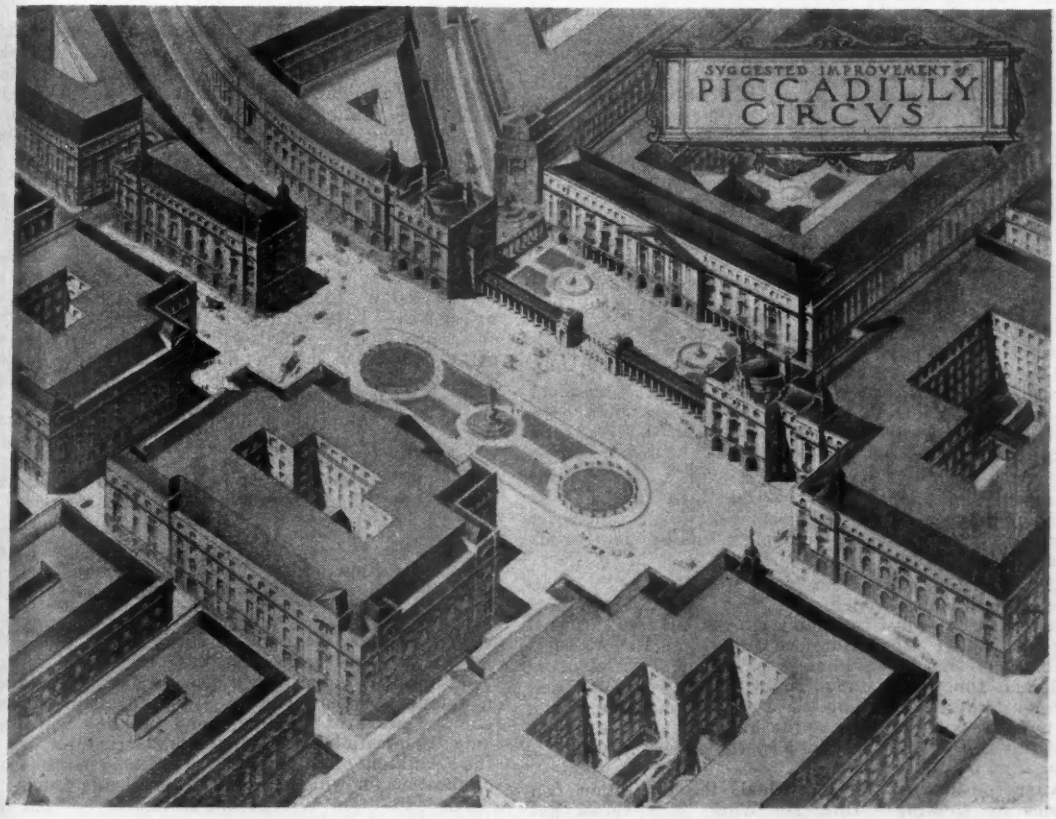


THE PLAN FOR SOUTH LONDON



Based on Ordnance Survey.

GENERAL PLAN SHOWING RING ROAD AND POSITIONS OF MAIN RAILWAY STATIONS.



BIRD'S-EYE VIEW OF AREA AT PICCADILLY CIRCUS.

D

Kensington, the latter providing a fine central site for the proposed National Theatre. Hyde Park Corner and the Marble Arch are replanned; this and numerous other interesting examples of studied details are related to the more comprehensive rearrangement of streets and buildings generally.

Notwithstanding the primarily artistic purpose of the plan, it has been felt that some reference to its relation with social, industrial and economic demands was called for, and the explanatory notes which are being published refer to a number of questions coming under these heads, though it must be admitted that the mode of approach adopted precludes the consideration of most of these as fundamental to logical planning. In reference to Industry and Housing, it is indicated that the convenience and amenities of London will largely depend on the removal of misplaced industry and warehousing, especially from the central area, accompanied by a corresponding adjustment of "industrial" housing. The Committee also insists that when the location of each of these has been determined, full consideration should be given to convenience, hygiene and amenity, with adequate provision for recreation, education, and exercise in the open air. The treatment of traffic demands is more specific, due to the fact that the plan is based to a limited extent on the Bressey-Lutyens Report. Fast traffic roads are visualised, and two special types are illustrated; in one case one-way routes are carried above single-storey shops on either side of an important main road; in the other the special road is treated on the lines of a railway. Both these are connected by ramps at suitable intervals with the general service streets, and have no frontages on them unless these are set back to provide drawing-in roads.

The provision of parking spaces within the areas of the larger business buildings is advocated, and with a view to the comfort of pedestrians it is recommended that many more streets and spaces should be closed to motor traffic and reserved for the walking public. The sites of City churches which have been totally destroyed would be laid out as gardens. Another proposal is that a number of small side streets should be closed at their junction with main routes by carrying the pavements across them. Pedestrians would also benefit by a more extended use of colonnades or arcades.

The much-discussed question of the Thames Barrage is also referred to, and the value of a permanent high-water level is appreciated, but no opinion as to the technical problems involved is expressed. This is perhaps only prudent, but it would have been most gratifying if a conclusion on this question could have been reached; the advantages are obvious, and against these an estimate of the value of tidal scour to port activities should be practicable.

The many merits of this imaginative plan for the embellishment of London, which justify its inception, and the strikingly artistic solutions of many of its problems, yet leaves one with the impression that it would have been of still greater value had the work been based on a considered programme for London as a whole. The admitted limitations in its scope must to some extent invalidate many of the conclusions arrived at. However important the artistic aspects dealt with, these would not suffer by being more specifically based on realistic needs, many of which have not in this case been embodied in the programme.

We now have before us the problem of reconciling the plan with the other vital demands of a replanned London, a course that, while not a criticism of this R.A. plan as an entity in itself, does in some measure reflect on the merits of the method adopted for its preparation.

The maps illustrating this article are reproduced from the Ordnance Survey with the sanction of H.M. Stationery Office.

"THE ENGLISHMAN BUILDS" EXHIBITION

An exhibition of architecture entitled "The Englishman Builds" was opened at the National Gallery on Monday. Arranged by the British Institute of Adult Education, in conjunction with the Army Bureau of Current Affairs and the Council for the Encouragement of Music and the Arts, it has been designed and prepared by Mr. Ralph Tubbs, who was also the designer of the "Living in Cities" exhibition.

The present exhibition is not concerned with architectural styles nor with an academic knowledge of architecture; it is concerned with architecture as an expression of men's lives and aspirations and as the result of their technical knowledge. It attempts to show that architecture and men's ways of living are inseparable, that one simply expresses the other, and that therefore good architecture does not merely happen, but is the result of some sureness of purpose, and of the confidence of the builders in their own way of living.

At the same time it tries to make the visitor feel some of the pleasure of looking at buildings and to stimulate a critical eye. It is based on the belief that it is more valuable to be able to apprehend a building, both as a work of art and as the expression of people's lives, than to comprehend the academic significance of styles.

The exhibition is therefore an attempt to explain the statement that "buildings show what men have done in their own times under circumstances which can never occur again." It attempts to explain this by showing six scenes of the builder at his work.

The exhibition starts from "The Man Himself." Whatever he may make—from the smallest object to a building or a town plan—must inevitably express his way of thinking and reflect the cultural, technical and social background of his age. Photographs show how men, at different times and in different places, express their different ways of thinking. The first conditioning factor in building will therefore be the builder's attitude to life, and this in turn is conditioned by the society in which he lives.

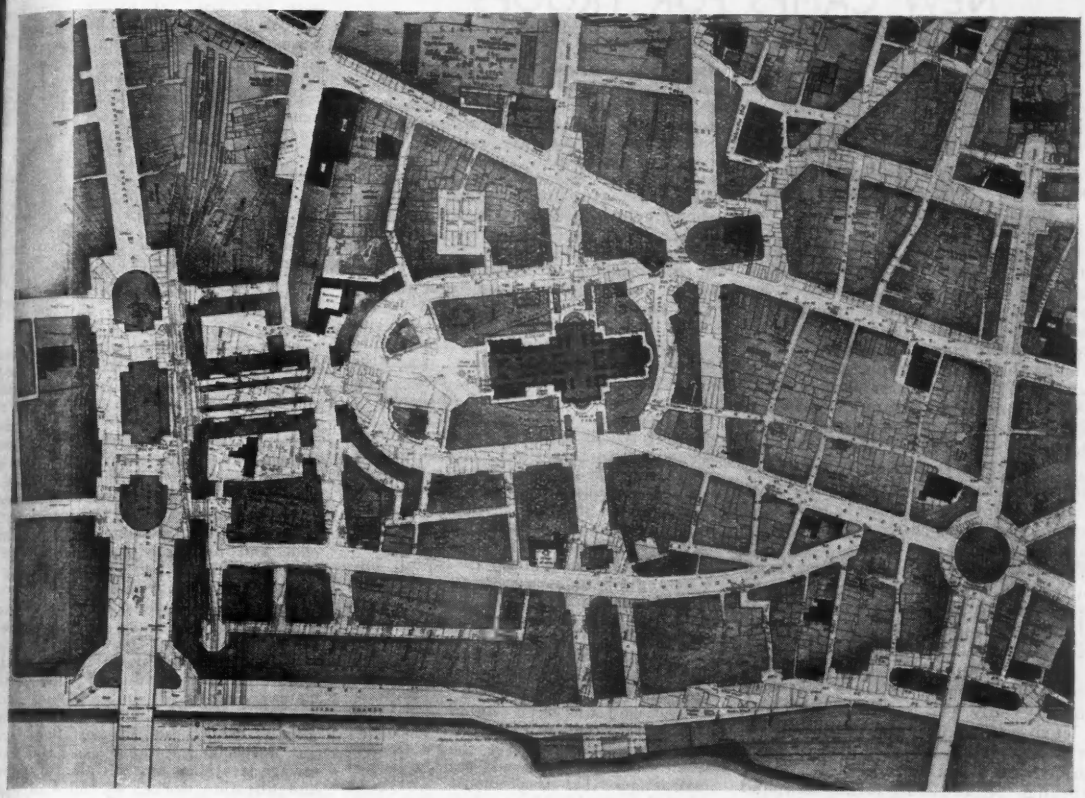
After considering the individual, the exhibition continues by showing "How He Works." It shows how man, when starting to make anything, has three things to consider—the purpose for which he is making it, the technical knowledge and materials at his disposal, and his desire that his completed work should look well.

We now come to the first of the six scenes. Each of these scenes is shown in six screens, and these follow a similar sequence in each scene to make the exhibition as simple to understand as possible and to make comparison easier. The first of the six screens in each case is devoted to "The Man Who Was Building," his life and the life of the other members of the society in which he lives. The second screen is devoted to "The Materials and Tools Available to Him." The third screen of each scene shows "Some of His Work," giving examples of how, with the available materials and tools, the builder has solved the building needs of his age. This screen gives an impression of the scope of building at the time, and is also a background for the last three screens of the scene, which in each case is devoted to a "Close-up"—an analysis of one representative building of the time. Thus the visitor to the exhibition may get to know a typical building at close quarters. The building chosen for the close-up in each scene is not one of the great monuments of architecture, but rather the kind of building that the ordinary man at the period being discussed would have had most interest in. It is hoped in this way to encourage the visitor to realise that all building, however humble, is architecture; that it is worth while to look at small buildings as well as large.

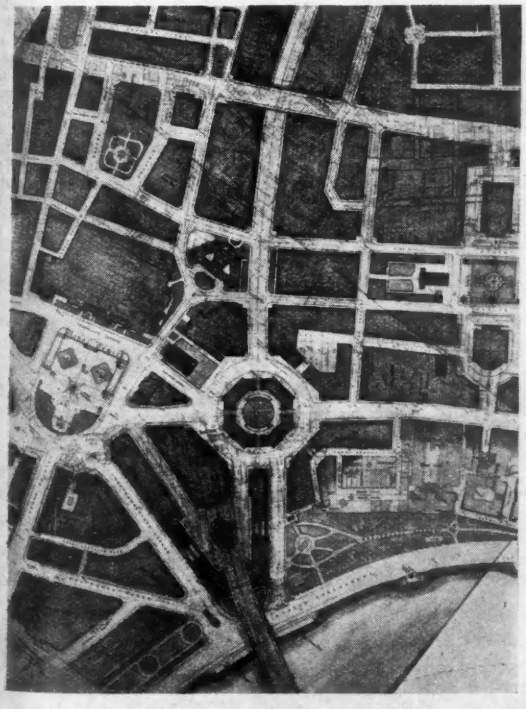
The scenes portrayed are "After the Norman Invasion," "Mediæval England," "The Grand Manner," "The Industrial Revolution," "Between the Wars, 1919-1939," and "After the War."

The last scene looks forward. For the "Man Who Will Be Building" is shown a photograph of a soldier in action. "With new circumstances achieved, new materials and new tools at hand [it is stated], we shall inevitably work out new ways of building," and building will mean not only the creation of new individual structures, but rather the rebuilding and replanning of cities as part of the better civilisation for which the war is now being fought.

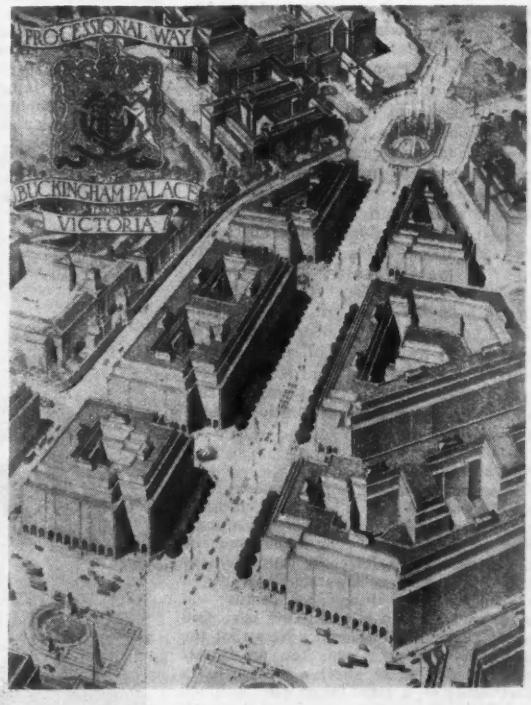
The exhibition is open till November 8, from 10 a.m. and on Sundays from 2 p.m. until 6 p.m. or black-out.



ONE OF THE PLANS FOR DEVELOPMENT AROUND ST. PAUL'S CATHEDRAL



TRAFALGAR SQUARE, COVENT GARDEN AND THE NORTHERN APPROACH TO THE PROPOSED CHARING CROSS BRIDGE.



THE DEVELOPMENT BETWEEN BUCKINGHAM PALACE AND VICTORIA STATION.

THE ROYAL ACADEMY PLAN FOR LONDON.

NEW CAMPS FOR TROOPS

FROM OUR SPECIAL REPRESENTATIVE

THIS is a record of the achievement of the men who are building a military town that the War Office describe as the largest single project of its kind in the country. The site itself is in two parts, which I shall call Site A and Site B, some few miles apart; sites that a Whitehall warrior with vision evidently selected with a view to the execution at a future date of a pincer movement that will join the two parts of the depot by far more than the railway track which at present is their chief link. So large is Site B that it encircles a farm which, through the forethought of the Army, has been left more or less intact, while at one stage of our conducted tour we were entrained for an hour's ride round Site B on the railway track which the sappers had built in record time. So concentrated was this tour by foot, motor-coach and rail that ours may well be called an American tour!

The position of the camp has been well chosen from the military point of view. It is in a countryside that still smiles despite the fresh scars on the pastures of yesterday, for though 18 farms occupied the land that has been requisitioned for this war-time necessity only two farmers have had to leave. By a carefully planned redivision of land, the others have been enabled to stay. And none of the buildings on these 18 farms has had to be demolished—save one, of which more anon. Further, under the directions of the youngest officer Commanding Royal Engineers, constructional work has taken place round standing crops, none of which has been lost.

This young Colonel is in charge of both sites. Working with him on this job are a number of interesting characters, all of whom have helped in this gigantic enterprise, which comprises:

Eight 1,000-men camps; an engineering depot; an ordnance depot; a signals depot; a labour camp; a quartermaster's stores; an air stores; a 750-bed hospital; 18 miles of concrete roadway; 33 miles of railway track; 12 miles of water main; 18 miles of drainage; 1,088,000 sq. ft. of covered storage; 60,000 sq. yd. of concrete "hard standing"; 1,600 telephones, with 40 private lines to all parts of the country, 24 manual boards, 32 teleprinters, 32 miles of telephone wires, and an inventory which would occupy pages of *The Builder*.

A Great Effort.

Between the official announcement that the Minister of Labour had called upon the building industry to put forth a great effort in a new rush programme and the publication of his letter to the industry thanking it for its spectacular work in providing "such things as camps and aerodromes," much too little has been said about the programme itself. Now that the curtain *has* been raised, too much has been revealed in too short a time. In six short hours, less time taken off for lunch in a workers' canteen, no part of the work that is taking place at Site A and Site B was not shown. Despite a welter of notes and the freedom with which questions were answered, I still find it difficult to distinguish between the work at both sites—perhaps because the War Office regard the two jobs as being one huge enterprise. On both sites the work was well organised, and the order of operations was varied according to the weather and progress. Straight line graphs were drawn to record the progress made on almost every operation on the job—Nissen huts, Hall huts, "Iris" sheds (one of these is illustrated under construction), ditching, laying of railway track, road laying, water mains, etc.—and labour was switched to any operation which either had to be speeded up to avoid a bottleneck or was lagging and was already a bottleneck. On one occasion, when the supply organisation excelled itself, 3,750 lorries and 500 railway truckloads of materials arrived on the same day; the entire force of sappers was switched to unloading, and released every lorry and every truck in that one day.

The peak labour force for both sites was 1,500 sappers and 5,000 civilians. For the sappers it was all in the day's work. One day they might be fighting with bayonets, the next laying mines, the third constructing a base (such as this) in the field. Here, however, they were concerned only with railway construction work; the civilians laid the roads and carried out all the other civil engineering and building work. All the civilian labour was directed to the site by the Minister of Labour, and a large percentage of the men were designated craftsmen. The Colonel reports that the tone of the work rose when these men arrived, and he issued instructions that they should always be allotted to work allied to their own trade.

The troops and the civilians on the site fraternised at all times. The Chief Engineer, Western Command, issued instructions regarding the welfare of the civilian labour in off-duty hours to his officers, the contractors, their agents and the joint engineers (who, with the Colonel-in-Charge, planned the job), telling them to inform the men that they were a fundamental part of the war effort. The men were told the nature of the two jobs at the start, and in his letter the Brigadier wrote that this job could be completed in schedule time only if all parties co-operated and worked as a team. The civilians to whom this letter was ... were informed that for the duration ... the job they were his officers, and th... it was the first duty of an officer to kn... his men. The civilian officers we... expected to fraternise with the men, d... with their problems, and lead them ... completion ahead of schedule. In t... opinion of the Colonel, it is because t... was done that both jobs are ahead ... schedule to-day. He speaks very high... of the whole-hearted co-operation ... has received, and still is receiving, fro... the civilian labour, and attributes t... speed with which the contracts are bei... completed to their willingness to wo... long hours without complaining. Actual... they work a 60-hour week at both camp...

Touring the Site.

The sun was shining as our motor-coa... drew up at the main entrance of Site A ... and we were welcomed by the Colon... and representatives of the contractor... engineers, surveyors, and the leader ... the workers. We had already been giv... some idea of the organisation that ha... enabled work to go so well on Site A ... where the job was to erect three depo... of Iris shedding, three camps, each f... 1,000 men (mostly Nissen huts with bri... ends and partitions), a labour camp ... M.O.W.P. Hall hutting, the laying ... eight miles of railway track—work whi... included 22,000 cu. yd. of excavation ... 45,000 sq. yd. of concrete road... 60,000 sq. yd. of "hard standing" an... vehicle parks; 2½ miles of main drainage... 4 miles of open ditching; 3 miles of wate... mains; 376 Nissen huts, giving 225,00... sq. ft. of floor space; 50 "Iris" sheds ... giving 168,000 sq. ft. of floor space ... an unspecified number of Hall hut... sewage treatment and outfall works; wate... and filtration works; 4¾ miles of fencin... for perimeter of site; provision of electri... light and power; provision of telephone... and a teleprinter system.

It was on May 19, before the ground ha... been surveyed or the contract let, tha... the War Office sent one Railway Construc... tion Company, one Pioneer Company an... one company of non-combatant troops, ... total strength of 900 men, to lay the rail... way track, sidings and marshalling yard... for Site A and to erect the engine sheds ... water towers, signal cabins and coa... bunkers necessary to maintain the rolling ... stock. Work here was straightforward an... was completed in 10 weeks at a cost o... £60,000. News of these activities ha...

NEW CAMPS FOR TROOPS.
Erecting an "Iris" hut for storage and workshop. It is of tubular steel construction.

meanwhile reached the Ministry of Works and Planning, which, when the War Office invited tenders for the main job, sent up a flying squad of 35 men to erect the site construction camp, which was described in *The Builder* of July 24.

This was the first time that such a squad had gone into action, and they completed seven Hall huts, providing accommodation for 50 men, in 16 days. This camp has been enlarged by the addition of several Hall huts, and is now the labour camp for Site B. Here the welfare of the men is well catered for. Concerts, lectures, darts matches and sing-songs are held regularly, and evidently keep the men in high spirits. On July 29 the contractor moved into the site construction camp with 50 men—a week after the contract had been let. This advance party was reinforced at a rate of 100 a week for two weeks, and then 200 a week until the total had reached 1,300. The scheduled time for the work was 18 weeks, and experienced engineers said the job could not be done in that time, but so rapidly and efficiently has the work been accomplished that it will be handed over at least six weeks ahead of schedule, and already five officers and 500 other ranks have moved into part of the camp.

Right at the start a works committee was formed, and the Colonel was lucky to find a representative of the workers who could get things done. The committee consists of three representatives of the men, with three of the management. The Colonel takes the chair, but has been unable to attend all the meetings. The committee sits once a week, which is ample, for this is no "talkie talkie," but a meeting where action is decided. Every day, during the luncheon break, one of the men's representatives sits in an office, where he is ready to receive complaints and suggestions.

Value of the "Works Committee."

The most active member of the workers' committee is a "scarlet" Communist, who wears the Mons Star, and describes himself as "just a building trade labourer." He is a man who hopes that the lessons learned at Site A by both men and contractors will be passed on. He is a miner, from the anthracite belt of Swansea, who moved to the Midlands in 1924, and became a building labourer. In peace time he has been responsible for many labour agitations, but his heart has always been in the right place. In the opinion of his fellow labourers he is worth £20 a week to the contractors just for walking round the job. The mere sight of him makes the men work harder. He gives the men "pep" talks during the lunch and dinner times.

"The works committee is a works wonder," he told me. "It is a platform on which grievances and suspicions are aired by both sides, and decisions are taken on the most controversial matters with no hesitation." Payment by result was being operated at both sites, of course, and operating very well. He has no grumble on this score, but he, and other men, pointed out that the trade unions are opposed to the system, and that it is only accepted as a war-time necessity.

After a talk with him we walked and rode round the site. It was a hive of industry. Already 80 per cent. complete, this site covers 350 acres. Every one of the huts and stores is served by either a railway spur or a road. The story of the progress of the site is so involved that not even the Colonel could unravel it without consulting masses of papers. In some instances foundations were laid first and huts and sheds erected afterwards; in others the sheds were erected first and the foundations poured in under cover in wet weather. Sometimes a push was made with the roads, sometimes with the drainage system, sometimes with the huts. The aim was always to get the troops into part of the camp as early as possible, but not to lag too far behind with the rest of the job. So quickly are the men working that they have cut the time schedule for the erection of an "Iris" shed from a week to 2½ days. There is a friendly rivalry between gangs as to who will put up the record erection time. There has been only one modification to this type of shed, and that is that the doors have been redesigned so that they open outwards instead of inwards, thus gaining an enormous amount of storage space.

Work on Site B.

From Site A we rode in our motor-coach to Site B, where the job is a much larger and more complicated one. Here they are constructing a quartermaster's stores, an air stores, a 750-bed hospital and five camps for 1,000 men each. The area of this site is 3½ square miles. The Colonel was already established at his headquarters for Site A when we learned that work was to begin on Site B. He then had no idea of who his contractor would be, how many men he would get or how many machines. He had no time to get out a detailed survey of the site. So, with a major and four lance-corporals and the representatives of the joint engineers (who were his consulting engineers for Site A), he sat down in his farmhouse for nine days and planned his job from ordnance survey maps scaled up to 6 in. to the mile. He describes this effort as reconnaissance from maps, and said: "We had to work to contours, and it was not until we had completed our plans and were actually at work that we discovered that by some mischance we were working from maps with a southern datum line. There is only 8 in. difference between the contours on this map and one with a Liverpool datum line, but it threw out our operational programme considerably, and we were constantly improvising as we went. Meanwhile, provisional bills of quantities were prepared." Apart from the episode of the datum line, the Colonel's reconnaissance from maps told him almost everything that a detailed site survey would have done. Two things were not shown on the ordnance maps, however—the lavatory that had to be demolished and re-erected a few yards away to give the railway a clear run, and the dungheap on which the Colonel had sited his own office!

The moment the layout was agreed the sappers moved in to start the railway construction; one Railway Construction Company and two Pioneer Companies started work on June 12. When the 900 men at Site A had completed the railway there, at the end of July, they moved over to Site B and raised the force to two Railway Construction Companies, three Pioneer Companies and one Non-Combatant Company—a total strength of 1,500, working strength 1,100. The railway construction work at Site B was much more intricate. A mill race winds along one side of the site, and unfortunately is higher than the surrounding land, which is consequently not exactly dry. An extensive drainage system was carried out, during which the mill race was diverted to enable bridges to be placed square, while at one place the drainage was carried under the stream, which was diverted through pipes over the drain. Twenty-five miles of track were laid at this site, involving seven miles of ditching, 1,000 yd. of culverts, the use of over 200,000 tons of clinker, 50,000 sleepers, 750,000 bricks for coal stores, inspection pits, signal cabins, and the dwarf walls for the engine sheds. The 25 miles of track includes sidings, marshalling yards, etc., and the schedule rate was one mile in four days. Actually, work was completed in 99 working days, and was delayed 20 minutes so that the visiting party of Pressmen could see the ceremonial laying of the last few yards of track. This was carried out in the American fashion at an amazing speed, "dogs" being used instead of fishplates. On the main part of the track (this was a siding) fishplates are used. It is interesting to report that six American shunting engines, one of them built at Pittsburg in 1901, are now working on these lines.

At 11 a.m. on July 27, the tenders for Site B were opened in the War Office. At 11.20 a.m. the War Office telephoned the Colonel at Site A and gave him the details. He immediately contacted the contractors, sub-contractors, welfare and many other officers, Government Departmental officials and others concerned in the undertaking, and summoned them to a conference. This was held the next day, and the operational programme was laid down; in a few hours men and plant began to arrive, and the next morning work began. At this time the Colonel had no idea how many men and machines would be available to him, but he now has 3,700 working at Site B, while on both sites there are over 200 pieces of plant, including caterpillar tractors, trenching machines which did half a mile (the work of 400 men) a day, 12 cu. yd. scrapers, which were worked as a team, heavy concrete mixers and diggers—plant without which, the Colonel reckons, over 60,000 men would be required to finish the job on time.

On this site there was no works committee until three weeks ago, when, realising the benefits that had accrued from the establishment of the committee at Site A, the contractors formed one.

Site B was not quite a large-scale replica of Site A. Not only did the railway construction work differ, but Hall huts predominated. There is no preference expressed by the War Office for either type of hut; it was simply a case of erecting what was supplied, and it so happened that plaster-board huts were delivered to Site B. From a working point of view, Site B was not too easy. The surface soil varied from field to field, being clay, ballast or peat, while there was always the water trouble to overcome. The water supply for the site, by the way, comes from a well sunk by the sappers 100 yards from the mill race, while a reservoir is being constructed on a hill at the centre of the site which will supply all that is needed when the camps are handed over. The only real supply difficulty that had to be overcome was that of gravel. The Colonel located his own seam some distance from the site, on which he drew to the extent of 1,400 cu. yd. a day. He used it at an equally fast rate—1,000 cu. yd. a day on the roads and from 200 to 400 cu. yd. a day on the railway.

Summing up the work at both sites, the War Office issued the following figures of the work which had to be carried out:

Excavation of 250,000 cu. yd. of earth; laying of 175,000 sq. yd. of road (roughly 18 miles); laying of 33 miles of railway track; the using of 205,000 tons of clinker and more than 50,000 sleepers; laying of 18 miles of water main and 18 miles of drains); mixing of 1,000 cu. yd. of concrete daily (about 3,000 yd. in length), equivalent to about 1½ miles of road, but actually including a large percentage of flooring; and excavation of 21,700 yd. of earth to form new ditches and to deepen and enlarge existing ditches.

The floor area of the living accommodation is 900,000 sq. ft., and 1,400 telephones, with 40 private lines to all parts of the country, 24 manual boards, 32 teleprinters and 38 miles of telephone wire were installed.

The contractors for Site A were Messrs. Simms, Sons & Cooke, Ltd., and for Site B, Messrs. W. J. Whittall & Son, Ltd.

ARCHITECTURAL SCIENCE

THE SCIENTIFIC BACKGROUND TO ARCHITECTURAL PRACTICE

THE Architectural Science Board of the Royal Institute of British Architects has organised a series of lectures of which the first were given at 66, Portland-place, W.1, on October 10. Mr. Alister MacDonald, F.R.I.B.A. (Chairman of the Architectural Science Board), who presided, said that the object of the present series of meetings was to study the liaison between scientific research and the ordered and flourishing development of the practice of building. The first lecture would be by Mr. G. L. Greaves, who was a city councillor. At the beginning of the war Councillor Greaves and his colleagues in their part of the Midlands had got together and started a co-operative scheme of building. Architects and others had pooled their technical resources, and, as a result, buildings had been erected which were not only useful now but would continue to be so when peace came.

COUNCILLOR GREAVES followed. Briefly surveying the past century, he said that in 1840 we were still an agricultural community. Until then we had been the finest town builders in the world, but we found ourselves faced with the building of cities, which was a very different thing. Of the 26,000,000 people then in the United Kingdom, only 2,000,000 inhabited London as against 8,000,000 now. Only a quarter of the population then lived in towns having over 20,000 inhabitants; to-day nearly four-fifths of our people lived in towns, and nearly half in the six largest towns. This change had been brought about by economic causes. The new machinery required labour to be concentrated, and labour required housing.

The speaker read from a novel by Disraeli to show the terrible conditions that prevailed. The Report of a Royal Commission which sat in 1845 showed that Disraeli had understated the horrors of the situation rather than otherwise. The architects of that time had missed an opportunity, because they had not been concerned with the housing of the people, but with classic and gothic revivals. They had gone their way unheeding and lost touch with life. As a result, sound architecture had died. A renaissance of domestic architecture had begun with the association of William Morris with Philip Webb and Norman Shaw. Pugin was another who had sown seeds of revolt. Just prior to the war of 1914-18, architecture looked like getting somewhere, but the war had introduced problems of a magnitude previously unknown, and for the second time architects had largely lost their way. The proof of this lay in the large proportion of houses built between the wars for which architects were not responsible. They had not been clear enough in their own minds to give a strong lead, not only in the matter of the actual plans, but also in the wider problem of reconstruction which was really a problem of housing. But on the credit side it should be stated that architects had stripped their buildings of pretentious humbug when the present war intervened.

Looking towards the future, the speaker said the present system of controls had come largely through war conditions. It would last for a period after the war, but in a modified condition, and would cease gradually to be concerned with actual building work, and would at the most determine the general policy. Private enterprise would not brook the delays caused by the Ministry of Works and Planning. It was right there should be central control, but the industry should be encouraged to organise itself to carry out a programme, and he (the speaker) believed this would happen. Policy would be initiated by legislation, but a co-ordinated reconstruction programme was, to his mind, foredoomed.

Architects and Rating.

A matter to which architects should give attention was our rating system : the underlying principle of this had not been changed since it was instituted in 1601. The assessment for rates was based upon the value of a site including improvements. Hence the owner of houses in a slum had no interest in improving his property, because such improvement would raise the assessment without bringing any corresponding increase in rent. Such a system was bad for the architect, bad for building and bad for the community.

As to post-war housing needs, were our traditional methods swift enough to cope with the problem? Did we build too sturdily? We built for 200 or 250 years, but the house was out of date in 30 years. What about prefabrication? Whether architects liked this or not, if it was to come it would be better they should control it. It might be necessary to accept substitutes for normal material : he did not think the problem of concrete for the domestic house had been properly solved.

Speaking of the ability to design, Councillor Greaves said a good building came from the soul of its creator, and had something of his personality in it. This was what distinguished the practice of architecture from a business. The architect's training and education were of vital importance, and such work as was carried out in schools of architecture was a necessity. But the schools tended to lose sight of the practical side, and it would be an immense benefit to the intending architect if he could spend a year in the builder's office, and on the sites, before commencing to study architecture. We had much to learn from other countries, and the proportion of architectural students able to go abroad for three or four months at a time was too small.

In reference to contemporary building possibilities, Councillor Greaves said we were facing a period of rapidly changing technique. Before the war architects had found it difficult to keep abreast of this. The Building Research Station was doing invaluable work. The architect in practice was inundated by the flood of information : a digest in a readable form should be prepared and circulated.

A point in running an architect's practice was the necessity of working to an efficient time chart. But many did not do this. The simpler the chart the better. Before work was started, architect, surveyor and building contractor should meet as a committee on the site and discuss the job. It was important to work to time. Costing should be efficient. In his own case the quantity surveyor was brought in at an early stage and the specification was written. Over the plans there was question and answer, and then the surveyor prepared his rough quantities and got his costing out. This figure was submitted to the client, and if the client said "Go ahead" he (Councillor Greaves) went back to the quantity surveyor and said : "It has got to [illegible] so much," naming the figure the quantity surveyor had himself estimated. The result was that 75 per cent. of jobs were completed within their estimate.

It was a function of the architect to foster good taste on the part of the public. He (Councillor Greaves) sat on an Art Galleries Committee which was always glad to get good exhibitions of things connected with housing. The need for revision of by-laws had been recognised by the R.I.B.A. Under present conditions this should be continuous, because the advance in technique made by-laws out of date in five years, at least in some particulars. Good craftsmanship should be fostered—it was essential to the architect—but craftsmanship must decline in face of the present mania for speed in building. When a practice became very big the architect ceased to be an architect and became an executive. Every architect should have the feeling that he was personally responsible for the buildings he put up, and that it was his duty to the community to make them as beautiful as possible. When in business on his own account he had to be designer, executive and business-getter, and it was comparatively rare for any one man to be able to carry out such a variety of functions. Partnership was usually the most efficient way to solve the difficulty. A system of profit-sharing might also be considered.

With regard to the relation of architects with other professions, in the past there had been too great a tendency to quarrel with engineers. It should be recognised that the work of either was complementary to the other. In certain cases it was an advantage to have a partnership between architect and engineer. There should be very close co-operation between architect and quantity surveyor, and where the work was large enough it was a good thing for the quantity surveyor's assistants to work in the architect's office. As to specialists as architectural consultants, the specialist he had in mind was one who, while giving advice, had a product to sell. It should be an axiom that specialists and consultants should be independent, but the client's point of view was that the architect should know all about building, and that there should be no extra expense for consultants. He (Councillor Greaves) believed that employing the right type of consultant was an economy in the long run. If one went to a concrete firm, and they had any doubts about the right quantity of steel to be employed, they would naturally overload the work; but as an example of the type of consultant he had in mind, there was in the Potteries a firm of architects which specialised in the design of pottery factories. Another architect, if asked to design a pottery works, could not have the experience of this firm. Architects were sometimes accused of being "stand-offish" with the remainder of the building industry, and in many cases this was only too true. It was absolutely necessary that there should be close co-operation if the industry was to resist over-centralisation and dictation from above. As to the architect's legislative responsibilities, a considerable amount of useful work could be done by giving specialist knowledge to the Government. Before legislation there was usually discussion, and at this point architects should interest themselves. The question arose whether there should not be a permanent committee to consider impending legislation and to inform members of the House of Commons of the reaction of the profession to it.

Discussion.

Mr. A. W. Davson (Chairman of the Quantity Surveyors' Committee of the Chartered Surveyors' Institution) said that science, *i.e.*, ordered thought, could not be brought into building without complete co-operation between all the various interests. Architects, quantity surveyors, contractors and operatives should get together and prove to the building owner that the best way to build was to get proper particulars in advance of building. In this way they could go right through a scheme without constant alterations, and could so arrange that the operatives could move forward without constant change, enabling the contractor to organise his work. Co-ordination would lead towards the scientific outlook. It was the way to do things swiftly and intelligently.

Mr. Thomas said the main thing for architects to direct their attention to was the way to possess the requisite knowledge in an architect's office. Would those present support the idea of having architect and engineer in the same office, as in the case of the firm of Albert Kahn in America, in which there was a whole array of specialists, so that it was not necessary to go outside; or was it more advantageous to have the outside consultant, with his many other contacts? Within the office, should the different jobs be allotted to different groups of assistants; or should all the work relate hierarchically to the chief, and each assistant do only certain parts of certain jobs? By the latter method you had your elevation man, plans man, drainage man, quantities man, and so on. Which was the best of these two methods of organising an office?

Councillor Greaves replied that so far as concerned the partnership of architect and engineer he thought this was good wherever there was sufficient work, and it was being done in this country, as in the cotton mills of Lancashire. But it tended to put architect and engineer into specialist trades where they did nothing but one sort of job. As for the method of working, he was personally in favour of choosing an assistant for a particular job, and letting him do that entirely. The principal liked to see his personality in the building, and the assistant should have the same opportunity.

Mr. A. H. Moberly said the point about employing specialist firms or getting advice from a consultant was extremely difficult. Councillor Greaves had suggested that where specialist knowledge was required the architect should go to a consultant whose view was unbiased rather than to the supplier of a particular article. Steel and heating were obvious cases where in any large building specialist knowledge was required, and he (Mr. Moberly) imagined it was the rule for architects to go to steel manufacturers for steel design, and to heating engineers for heating design. There was an immense advantage in having an entirely unbiased view, but not necessarily better service for the building owner. One advantage of going to the specialist firm of suppliers was that they had such immense experience that it was generally better than that of a consultant. They knew, too, what materials they could supply cheaply, and which would work in well with their method of carrying things out. If one went to a consultant he might design things in a way to which the firm who carried out the work were not accustomed; and that might influence costs. Putting aside the question of fees to consultants, his (Mr. Moberly's) own personal experience was that one got better service by going to the firm that carried out the work rather than by going to a consultant.

Mr. A. E. Williams said the architect had control of the job, and could sift the specialist's suggestions and look after the client's interests: he must always be in the position to sift the schemes put forward by consultants, whether they were individual consultants or people interested in supplying some article.

Mr. Pidgeon said he had generally found the employment of a consulting specialist a tremendous advantage. The architect could discuss things with the consultant at a very early stage. For example, even in the sketch plan stage they could discuss the general economic spacing of supports; but the architect would hardly feel like doing this with a specialist firm until the scheme was much more worked out. Again, if a difficulty arose while the work was in progress, the architect felt in a stronger position if a specialist was supervising the work. Councillor Greaves replied that with a reasonably small building he would risk his own calculations in steel, but with a large-sized contract, and complicated calculations on steel or reinforced concrete, he would have a consultant.

Mr. Davson said the scientific approach to a building took much longer than the ordinary approach and, further, if the building owner wanted the scientific approach he must pay for it. But it was penny wise and pound foolish not to have it.

Mr. Egerton said the majority of specialists liked to give service to the client as well as to the architect. The consulting engineer would not risk going on the low side of a load, and would probably put in as much steel as a specialist firm.

Mr. Davson said if there was competition the specialist firm must keep the price down in order to get the job. They had other work, knew the details, and so were better able to give an economic price than a consultant.

The Chairman said that the other day, when discussing the question of heating and ventilating, he had been told that competition before the war had been so keen that firms would design a scheme to get a job—not necesarily a scheme to give client and architect full satisfaction. Each firm sought to get in a scheme which would beat that of any rival on price. If this element of price could be cut out, the question of whether it was better to go to a professional consultant or to a specialist firm would eliminate itself. As to fees to consultants, Mr. Moberly had said, "Let us take it for granted that the question of fees can be settled." This question could only be settled by gaining the confidence of the client. The client must be told frankly that architects knew a great deal about building but could not be expected to know every detail, and that to give the best service they had to consult other people.

Mr. A. W. Skempton and Mr. P. C. G. Hausser then contributed a paper, illustrated by slides, on "Some Considerations of Foundation Design." Sir George Burt took the chair.

The next meeting of the series will be on Saturday next, October 17, when Mr. Ewart S. Andrews and Mr. C. S. White will talk on "The Influence of Recent Scientific Research on the Design of Building Structures." The meeting (at which Mr. George Hicks will be in the chair) is at the R.I.B.A. premises, 66, Portland-place, W.1, at 2.15 p.m.

REPLANNING BRISTOL

MR. J. NELSON MEREDITH'S TALK TO QUANTITY SURVEYORS.

At a recent meeting of the Institute of Quantity Surveyors (West of England branch), held in Bristol, with Mr. J. L. Jackson in the chair, the Bristol City Architect (Mr. J. Nelson Meredith) gave his personal views on the replanning of Bristol. What was wanted, he said, was not a new but a better Bristol. They had a lot of links, and as many as possible should be used. Bristol, he thought, should be divided into two centres—the Civic Centre and the shopping centre. As for the approaches to Bristol, they were on the whole terrible; the streets should be widened, particularly Park-street, and the buildings should be uniform in height. We should aim at good, dignified and simple architecture, and seek unity without monotony and harmony without monotony. We needed better homes, and here he felt that all families should live in houses and leave the flats for single people and old folk. These flats should have gardens and should not be more than three storeys high. Working places should not only be in healthy surroundings, but near the homes. Schools should be improved throughout, and the hospitals transferred to the outskirts of the town, the clinics being left in the city. Heat and hot-water distribution should be on a communal scale. Transport wanted improving, and he thought that a fly-over was needed over Victoria-street, near the bridge.

In the business which preceded the talk, it was announced that Mr. Copsey had been elected Deputy-Chairman of the branch. Membership was now about 50, and the county of Devon had been added to the branch's territory. It was announced that an informal talk on quantity surveying for the benefit of the lay listener was to be broadcast by the branch shortly. The hon. secretary of the branch is Mr. A. Weeks.

Ilkley Architectural Competition.

In view of the great interest shown in this competition by members of the professional societies who are busily engaged on war work, etc., the date for submission of designs has been extended to 4 p.m., Friday, November 20.

Coventry Electrical Engineer.

Coventry Electricity Committee recommends that Mr. F. W. Godden, A.M.Inst.E.E., Deputy City Electrical Engineer, be appointed as City Electrical Engineer, with effect from October 1 last.

RECONSTRUCTION OF DEVASTATED FRANCE

WORK OF 1919-25.

THE Housing Centre opened its session for 1942-3 with a lunch-time meeting at 13, Suffolk-street, S.W.1, which was addressed by Colonel H. P. Cart de Lafontaine, whose subject was the reconstruction of the devastated areas of France from 1919 to 1925. Sir Reginald Rowe presided.

The lecture dealt largely with legislation enacted to deal with the situation. Of the work done, COLONEL LAFONTAINE said that first came the clearing of the chaotic debris of war from the battlefields, the restoration of cultivated areas to their owners and the provision of temporary shelters for those of the inhabitants who wished to return to their wrecked and shattered homes. This had been a task of incredible difficulty, because over the greater part of the area no roads existed, railways had been torn up, the ground was covered with miles of barbed wire, and everywhere there were live shells, mines and trenches. In the Department of the Somme alone, at the date of the Armistice, there were 500,000 acres of ground which had been torn up by shell fire, and 205 villages, or 39,497 houses, partly damaged and more or less uninhabitable. Clearing up could not begin in earnest until the Spring of 1919.

In the meantime, the Prefect of the Somme had been able to save many of the existing houses, of which walls or roofs had been damaged, from the final ruin which would have resulted from another winter's exposure to the weather. In this Department some 1,200,000 square yds. of bituminous roofing and 6,900,000 square yds. of oiled paper had been delivered, all to be used up by July. Similar temporary measures had been taken in the Departments of Aisne, Nord, Oise and Pas de Calais. In many cases the urgency of the provision of accommodation resulted in mistakes being made—often due to the pressure of local opinion, which was generally opposed to any improvement—or to difficulties with regard to the planning of streets resulting from a lack of imagination displayed by the local officials of the Government Departments dealing with canals, roads, bridges, etc.

In one case the town-planning scheme was prepared and approved by the local authority, but it contained certain proposals with regard to streets and lines of frontage which were not approved by the State Department concerned, and there were also objections on the part of the military authorities, who wished to retain certain areas which ought to have been available as building sites, since the town was no longer classed as a military fortress. Another case was that of a little village, of which nothing had been left. The lecturer said that when he remarked to the Maire that it seemed a pity to straighten two main roads, one of which branched off in the village and had previously ascended a gentle rise in a beautiful curve, more especially as this road was of great antiquity and interest, the reply had been that the engineers said all roads must be made broad and straight so as to attract tourists with motor-cars.

B.S. Specifications.

Following are issued from 28, Victoria-street, S.W.1 :—

B.S.S. for Fireclay Bases for Use with Coal Fires (B.S. No. 1074). (Price 1s. 3d. post free).

B.S.S. for Arc Welding Plant and Equipment for Heavy Construction (B.S. No. 1071). (1s. 3d. post free.)

EMERGENCY WORKS

REVISED LIST OF M.O.W.P. OFFICERS

The following list of M.O.W.P. Assistant Directors of Emergency Works and Emergency Works Officers has been issued :—

	Name and Address.	Reg. No.	Telephone No. Office.	Telephone No. Private.
	S.E. AREA. REGIONS 4, 6 and 12.			
A.D.E.W. ..	P. PAGET .. .. Whiteknight's Park, Earley, Reading.	—	Reading 61431	Reading 81417
D.A.D.E.W.	E. J. COOK .. .. Newcourt, Trinity College, Cambridge.	4	Cambridge 55206	Cambridge 2882
E.W.O. ..	F. CURRY .. .. Do.	4	Do.	Cambridge 4422
„ ..	S. CAMERON-KIRBY .. Do.	4	Do.	Cambridge 54754
„ ..	J. SEELY .. .. Whiteknight's Park, Earley, Reading.	6	Reading 61431	Reading 81417
„ ..	J. B. BRANDT .. .. 18, Archers Road, Southampton.	6	Bassett 68401	Ashurst 84
„ (T.T.A.)	H. E. BUCKLAND .. Pearl Buildings, Commercial Road, Portsmouth.	6	Portsmouth 74236	—
D.A.D.E.W.	R. BOSTOCK .. .. Forest Road, Hawhenbury, Tunbridge Wells.	12	Tunbridge Wells 2780	Tunbridge Wells 807
E.W.O. ..	G. UNSWORTH .. .. Do.	12	Do.	Tunbridge Wells 1924
„ ..	N. WYATT .. .. Do.	12	Do.	Baldslow 257
	MIDLAND AREA. REGIONS 3 and 9.			
A.D.E.W. ..	H. N. NORTH .. .. Somerset House, 37, Temple Street, Birmingham, 2.	—	Midland 6561, Ex. 15.	—
E.W.O. .	H. BOLTON .. .. Do.	—	Do.	—
„ ..	G. H. GILLINGS .. Phoenix Chambers, Colmore Row, Birmingham, 3.	9	6561, Ex. 31	
„ ..	R. L. RAIKES .. .. 10, Spencer Road, Coventry.	9	Coventry 4076/7	Leamington Spa 1728
„ ..	R. J. WARWICK .. 3, Queen's Street, Wolverhampton.	9	Wolverhampton 24932	—
As.E.W.O. ..	J. A. DORIN .. .. King's Chambers, Kingsway, Stoke-on-Trent.	9	Stoke-on-Trent 4238	—
D.A.D.E.W.	C. E. MATTHEWS .. Rockmount, Gregory Boulevard, Nottingham	3	Nottingham 66061	—
E.W.O. ..	J. W. ALLSOP .. .. 53, London Road, Leicester.	3	Leicester 22142	Leicester 78184
. ..	W. ANDREWS .. .. 23, Sherwood Rise, Carrington, Nottingham.	3	Nottingham 6052	—
	NORTH WESTERN AREA. REGION 10.			
A.D.E.W. ..	J. L. PATERSON .. 79, Fountain Street, Manchester, 2.	10	Central 7247/50	Bocklow Hill 2289
E.W.O. ..	A. H. WALKER .. Do.	10	Do.	Droylesden 1716
„ ..	E. H. GARNER .. 81, Dale Street, Liverpool, 2.	—	Royal 1807	Allerton 1161
„ ..	E. N. EVELEGH .. 3, Benson Street, Ulverston.	—	Ulverston 442	Ulverston 174
„ ..	E. N. BUTLER .. 6, St. John Street, Chester.	—	Chester 3290	Chester 329
	SCOTTISH AREA. REGION 11.			
A.D.E.W. ..	G. GARDNER MCLEAN Dunedin House, George St., Edinburgh.	—	Edinburgh 34681	Edinburgh 27091
E.W.O. ..	R. HURD .. .. Do.	11	Do.	Edinburgh 43109
D.A.D.E.W.	J. A. WOTHERSPOON .. 49, Queen St., Glasgow, C.1	11	City 5921	Eaglesham 293
E.W.O. ..	R. L. ROLLO .. .. 259, Union Street, Aberdeen	11	Aberdeen 800 & 8465/6	Cults 190
T.T.A. ..	R. S. HAY .. .. 71, Meadowside, Dundee	11	Dundee 5031	Per Police Broughty Ferry 7471
	LONDON AREA. REGION 5			
A.D.E.W. ..	M. W. HUDSON .. Drake, House, Dolphin Sq., London, S.W.1.	5	Victoria 4477	Wanstead 4197
E.W.O. ..	B. H. CHESSUM .. Do.	5	Do.	Enfield 0679
„ ..	E. CARR .. .. Do.	5	Do.	Brixton 4031
„ ..	R. A. DUNCAN .. Do.	5	Do.	Richmond 2067
„ ..	A. A. GRAHAM CHAPMAN Do.	5	Do.	Regent 2347
„ ..	L. W. MYERS .. .. Do.	5	Do.	Gipsy Hill 0490
„ ..	E. D. SELWAY .. .. Do.	5	Do.	Vigilant 4555
„ ..	F. WAKEMAN .. .. Do.	5	Do.	Petersfield 585
T.T.A. ..	R. H. HARRIS .. Do.	5	Do.	Palmer's Green 5264
	SOUTH WESTERN AREA. REGION 7			
A.D.E.W. ..	L. SCOTT-WHITE .. 19, Elmdale Road, Bristol, 8	—	Bristol 33306 & 33339	Temple Cloud 203
E.W.O. .. Bristol	S. COX .. .. .. Do.	7	Do.	Weston-super-Mare 925
E.W.O. .. Somerset	S. J. AINSLEY .. .. Do.	7	Do.	Bristol 23787
E.W.O. .. Devon& Cornwall	A. MARSHALL .. .. Compton Park House, Tavistock Road, Mannamead, Plymth.	7	Plymouth 61630	—
E.W.O. .. Glos./Wilts.	G. TOMALIN .. .. 30, Clarence Street, Gloucester.	7	Gloucester 4817	Gloucester 2218
	WALES AREA. REGION 8.			
A.D.E.W. ..	E. R. BUDGEN .. 66, Park Place, Cardiff ..	—	Cardiff 1609/10	Creigiau 30
E.W.O. ..	J. L. WEBBER .. Do.	8	Do.	Penarth 132
„ ..	S. CLOUGH .. .. 4, St. James Crescent, Swansea.	8	Swansea 4123/4	Swansea 6578
„ ..	W. W. BALDWIN .. 40, Well Street, Ruthin, Denbighshire.	8	Ruthin 426	Ruthin 53

	Name and Address.	Reg. No.	Telephone No. Office.	Private.
	NORTHERN AREA. REGIONS 1 AND 2.			
A.D.E.W. ..	H. E. PITT .. .. 12, Osborne Ave., "Jesmond," Newcastle-on-Tyne, 2.	—	Jesmond 2683	Bamburgh 44 Sunderland 3888 Sunderland 3693
E.W.O. ..	L. ATKINSON .. .. Do.	1	Do.	Riding Mill 236
A.E.W.O. ..	W. LAMB .. .. 101, Conniscliffe Road, Darlington	1	Darlington 2911	—
D.A.D.E.W.	R. M. HUDSON .. 40, Wetherby Road, Oakwood, Leeds, 8.	2	Leeds 66892/4	Leeds 65690
E.W.O. ..	M. I. ADDAMS .. 33, Grove Road, Millhouses, Sheffield, 7.	2	Sheffield 72211	Beauchief 70039
" ..	A. J. STEEL .. .. "Western," Packman Lane, Kirk Ella, Hull.	2	Hull 48810-2-4	Beverley 375

CONTROL OF BUILDING

F.G.L.M.B. "OPEN LETTER" TO THE GOVERNMENT.

THE Federation of Greater London Master Builders, being dissatisfied with the present position appertaining to the industry, direct the following questions to His Majesty's Government:—

1. Is it not essential to the interests of the country that co-ordination of the whole of the Government's building programme should come under one authority at the earliest possible date?

2. The Government having stated that industry must be kept fluid, is it their intention that the industry shall consist of a few firms only? Can it be denied that the industry has been exploited during the war, and why has not this exploitation been discouraged by the Government?

3. Is it not a fact that if the Excess Profits Duty was not on the 100 per cent. level, those few selected firms would be very diffident to give fixed prices for tenders on the basis of forced labour?

4. The Builders' Emergency Organisation was formed "to mobilise federated and unfederated firms, particularly medium and small, to building work vital to the national effort." Why has the Organisation, since it was taken over by the Ministry of Works and Planning, been practically ignored? Is it not a fact that the volume of work placed through it, especially in London, is negligible? Have not all practical tests that have been made upon it in London worked successfully? Why have contracts which are within the promised limit of £25,000 been placed without consulting the Organisation?

5. Was the Builders' Emergency Organisation, as representing the majority in the industry, consulted when compiling the register of firms qualifying to tender for the present building programme?

6. Could not many contracts which have been placed as single units have been divided into a number of smaller contracts giving greater scope for the medium and smaller builder?

7. Does the Special Joint Building Committee sitting to advise the Minister of Works and Planning on allocation of contracts fairly represent the industry, and can it appreciate the troubles and difficulties of the vast majority?

8. Is the value of the small builder, say the firm employing up to 20 operatives, realised? Is it not a fact that the whole of the work he has been carrying out during the war, which is principally maintenance of essential public services, is of as great a priority as any work that has been or may be undertaken of a large specific nature?

9. Why is there no clear understanding between the Ministry of Works and Planning and the Ministry of Health as to the immediate future? How is the country's housing difficulty going to be met if the war suddenly collapses? Why are virtually hundreds of properties which are urgently required for habitation still left to decay through the licensing restrictions?

10. In view of the large increase in population in recent months in London and the lack of accommodation, why are operatives engaged on war-damage repair, etc., being transferred to provincial cities for the purpose of carrying out similar work?

11. Why are the large firms allowed contracts in London which in the main are jobbing work? Such contracts are capable of being carried out by medium and smaller builders within the locality.

12. Is it not time that the £100 limit under Defence Regulation 56A was revised to prevent the down-grading of all firms in the industry rather than an up-grading?

13. Is the Ministry of Works and Planning not of opinion in light of experience that it would have been more satisfactory to have dealt with labour on the basis of units rather than at present by spasmodic transfer of all and sundry operatives which in the main appear to be coming from the small firm? Should not equitable transference have taken place having regard to size, number of operatives, etc.?

14. Why is the Ministry of Works and Planning unable to influence the Ministry of Labour to adopt fair and equitable methods in transference to essential work, it being a fact that the matter is dealt with haphazardly by National Service Officers?

15. Is it not a fact that the Government Bonus Scheme has many anomalies which create expensive practice, and work diversely against increased and speedy production? Can it be in the interest of the country that an operative under this scheme can earn more in bonus in a week than his basic wage?

16. Why was the present method of transfer of operatives to essential work made at Ministerial level and the industry not consulted in the matter?

17. Why are substantial firms in an area refused the opportunity of contracts in their own vicinity and the work given to imported firms?

TOWN AND COUNTRY PLANNING ASSOCIATION

EDUCATION IN APPRECIATION OF PHYSICAL ENVIRONMENT.

THE President of the Board of Education (Mr. R. A. Butler) received on September 1 a deputation from the Town and Country Planning Association and the Council for the Preservation of Rural England. The deputation, which was led by Professor Patrick Abercrombie, F.R.I.B.A., submitted a memorandum urging that more attention should be given in the schools at all stages to fostering the æsthetic appreciation of design and of all aspects of physical environment. The upshot of the discussion was that the President welcomed the expression of opinion by the deputation and promised that its wishes would be met as far as practicable.

The chief points arising from the conversations were as follows: While many schools at the present time are doing their best to teach the younger generation to want good housing and town and country planning, much still remains to be done. The scheme at Reading whereby the Reading University School of Art provides lectures for teachers in elementary schools, who in turn can instruct their pupils in the appreciation of design and environment, provides a good example. There was no question of introducing a new subject or specialist teachers, but rather that the existing teachers should be encouraged to include the appreciation of physical environment in the course of study in art and crafts, in geography or history and in outdoor study. The standards of building and equipment in the new senior schools should go far to help. The PRESIDENT told the deputation that it had come at a good moment, for the educational system is in process of being tuned to the changing needs of the future. While the child who leaves at fourteen might soon forget the lessons of the school in matters of taste, the prospect of a later leaving age would make the problem easier.

As an immediate step, the President promised to ask the Victoria and Albert Museum to consider circulating an exhibition of good housing to schools, and he suggested that the deputation should submit evidence to Sir Cyril Norwood's Committee which is investigating the secondary school curriculum.

IN PARLIAMENT

Damage to Old Houses.

MR. DUGDALE raised the question of the destruction of houses in this country by members of the Army and Air Force. He said that many of the houses requisitioned by the Army were of great beauty; nearly all of them were in process of destruction. He would take three examples of houses he had seen. The first was an ordinary modern house of no particular merit. But it was very well constructed. The window sills had been used as firewood, panelling had been split, the radiator grilles had been thrown into the fireplace and burned, the porch roof had fallen in and the lead had been torn off—not used for salvage, but thrown away. Everywhere the plaster was off, and, to complete the picture, in the garden the officer concerned considered that the most suitable place in which to build certain necessary offices was in a shrubbery. He cut down all the flowering shrubs to do so.

In another case of a very beautiful 15th-century house taken over by troops, panelling had been deliberately torn out, thrown on the fireplace and burned. He visited the place recently and found that, although it was under the care of the War Office, children were running about in it, and smashing what they liked. His last example had more interest, because it had some historical significance. Whatever they might think of him, Warren Hastings had some importance in British history. He had been to his home and had seen the damage caused by the troops. They had taken the protection off the mantelpiece, thrown that away, and then thrown the mantelpiece away. Finally, they took the stone portico base, and used it as a chopping block.

He did not think these examples were worse than many others he could give. These actions showed a total lack of appreciation of any form of beauty, a total lack of manners, and also, what was more important from a military point of view, a grave lack of discipline. It was not only the men who were to blame; it was far more the officers. Many of the men had never seen such houses before and did not know the value of the things they were destroying. But the officers did, or at any rate should, know. They took no action. It was said that this state of affairs was necessary in war time; that it toughened the men. The War Office should, however, see that disciplinary action was taken. The steps they had taken so far had not been successful.

MR. ORR-EWING supported Mr. Dugdale, and mentioned that he had had similar experiences in the West Country. He believed that the old custom, in force during at least a part of the last war, should be revived. Where damage beyond a reasonable extent was proved to have been caused by the misuse of billets and equipment by troops, the officers themselves were made responsible for the payment of part of the damage.

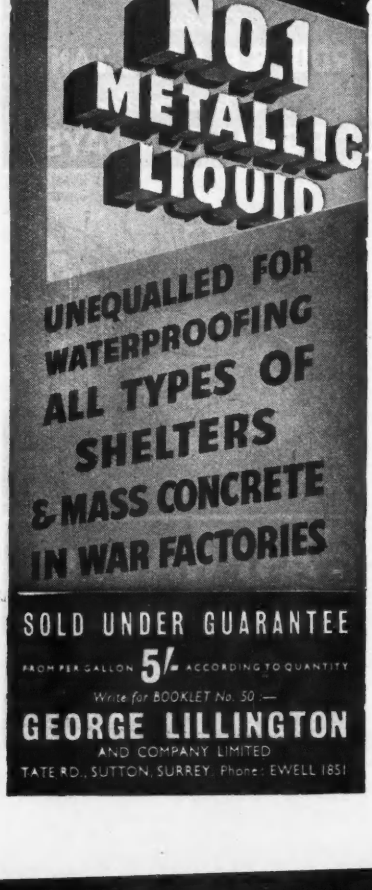
MR. LIPSON said that damage did not always necessarily happen whenever houses were occupied by soldiers. He had had in his own house 150 soldiers for some weeks, and he wanted to bear testimony to the fact that during that time no damage whatever was done to the property.

MR. HANNAH thought Mr. Dugdale had done a great service by drawing attention to this matter. They all knew that examples could be given of this kind of thing from other parts of the country. We were, in all conscience, losing enough of the heritage of our fathers to-day through the blitzing and other terrible events. The whole of Europe was far poorer in ancient monuments to-day than it was at the beginning of the war. On one occasion when a very pretty young girl asked Dr. Johnson the reason why he put something or other that was quite inaccurate in his dictionary, he made the answer: "Pure ignorance, my dear." He (Mr. Hannah) could not help thinking the same thing was very largely true of these soldiers. He suggested that, before going into any house, especially one with historical and archæological associations, a soldier should be told just why it was valuable and why it carried on into this generation the ideals of days gone by.

MAJOR A. HENDERSON, Joint Parliamentary Secretary to the War Office, in reply, said that, having regard to the vast number of men billeted, the complaints, serious though they might be, were very small in number. With a view to bringing to notice cases of wanton damage, the following measures had been put into operation: First, a monthly regimental inspection had to take place for which the commanding officer of the unit was responsible. Secondly, there had to be periodical inspection by R.E. representatives of all accommodation which was occupied by static units. Thirdly, a marching-out and a marching-in inspection had to take place whenever a unit changed station. He wanted to be quite frank with the House; he admitted that in some cases, especially when units were ordered overseas at short notice, the marching-out inspection did not take place.

MR. BOYCE: Is an inventory made of the damage when the inspection takes place?

MAJOR HENDERSON: Yes; an inventory is made, or should be made. Continuing, he said he did not claim that in 100 per cent. of cases the regulations were carried out, but they were in the vast majority of cases. The War Office had also started a system of flying inspections to supplement and check the more routine inspections to which he had referred. Army Council Instructions had been issued warning troops of the complaints received regarding damage and of the penalties. Another Army Council Instruction was about to be promulgated, and from it he gave the following extract: "Frequent needless damage to billets and requisitioned property and the removal and looting of private property from houses and bungalows taken over for defence purposes constitute a deplorable breach of the trust that has been imposed on the troops and causes indignation and a sense of distrust in the mind of the public. All ranks will understand that houses and bungalows, whether taken over as billets or requisitioned or entered on duty or otherwise, are private property, and they and their contents will be respected as such, and troops taking over, entering or guarding such property will be regarded as having a special responsibility for the safety and care of the buildings and their movable contents. Removal of any contents without authority will be regarded as a serious offence." Under the Army Act—Section 137 in the case of officers, and 138 in the case of other ranks—it was possible, where damage had been occasioned by proved negligence, whether of the officer or other ranks, to compel some degree of contribution towards the cost of compensation either from the officer or collectively from the unit, and, in some cases, that had been done. The cumulative effect of the measures to which he had referred, in spite of the fact that it was still possible to bring forward cases where damage had been occasioned, had been reflected, according to information at the War Office, in a marked decrease of cases of wanton damage to private property, as evidenced by the report of the flying inspections.



Iron Railings.

In reply to questions by MR. CLUSE, MR. HICKS said that at the end of August last the iron railings had been removed from approximately two million houses and the weight of metal recovered for scrap was 310,315 tons. Compensation had been claimed in 307,000 cases. Of these only 27,000 were for sums at a rate in excess of 25s. per ton, but 20,000 had now been settled within that rate. The small balance of 7,000 cases remained. Negotiations in respect of these cases were now proceeding, and apart from incidentals, it had not hitherto been necessary to pay compensation at a rate in excess of 25s. per ton.

MR. BOSSOM asked the Minister of Supply how many tons of the iron railings collected by his Ministry had been used for making munitions; and how many tons still remained on the collection dumps.

SIR ANDREW DUNCAN said that over 250,000 tons of railings had been consigned to the works producing iron and steel, while about 73,000 tons remained on the reserve dumps. These were constantly being called upon. The entire output of iron and steel was used to meet essential war time requirements.

Hot Water in Flats.

SIR EDWARD CADOGAN asked the Minister of Fuel and Power whether he was aware that the landlords of certain blocks of flats, where hot water was constant from a central boiler, were debarred from such economy in fuel as they might be able to exercise owing to the terms of their pre-war leases, which contained the proviso that all tenants of these flats should receive constant hot water; and whether any steps could be taken to correct this anomaly.

MAJOR LLOYD GEORGE said that not only was the landlord of flats not debarred from exercising economy in fuel but he was compelled to exercise such economy by the General Directions (Central Heating and Hot Water Plants) Nos. 1 and 2 which he had given under the Control of Fuel Order, 1942. The respective rights of landlords and tenants were, of course, for the Courts to determine. He was advised, however, that if a landlord was unable to implement his contractual liability to provide constant hot water as a result of the Directions, he was released from his liability to such extent as was necessary to comply with the Directions.

CONTRACTS OPEN

For some contracts still open, but not included in this list, see previous issues. Those with an asterisk are advertised in this number. The dates at the head of paragraphs are those for the submission of tenders; a dagger (†) denotes closing date for applications; the name and address at the end refer to the person from whom particulars may be obtained.

BUILDING.

OCTOBER 19.

Manchester T.C.—Construction of war-time day nursery, Wythenshawe. City Architect. Dep. £1 1s.

Omagh T.C.—Erection of public lavatory at Town Hall. T. T. Hamilton, Town S.

OCTOBER 20.

Poole T.C.—Control room at fire station. J. R. Barron, B. E., Municipal Buildings.

OCTOBER 22.

Porthcawl U.D.C.—Roofing of building at Gasworks. E. and S.

OCTOBER 23.

Ballinlough.—National School. Canon Murphy, Presbytery, Blackrock.

Bromley T.C. — Works for N.F.S. accommodation. B. E., Municipal Offices. Dep. £1 1s.

Orpington U.D.C.—(1) Alterations and extensions to premises at Orpington; (2) alterations and extensions to premises at Biggin Hill. E. and S. Dep. £1 1s. each.

Sunderland T.C.—Pump house. Electrical Engineer, Electricity Offices. Dep. £1.

OCTOBER 24.

Birkenhead T.C.—Erection of boiler house and storeroom at cooking depot. B. E. and S., Town Hall.

Ipswich T.C.—Nine static water tanks in brick and concrete. E. McLauchlan, B. S. Town Hall.

Potters Bar U.D.C.—Alterations and additions to certain civil defence buildings. E. and S., Wyllyotts Manor, Potters Bar. Dep. £1 1s.

OCTOBER 26.

Filey U.D.C.—Construction of concrete foundations, pads and brick tank, pits, etc., for benzole recovery plant at Gasworks, E. Jordan, S.

Manchester T.C. — Alterations and adaptations for N.F.S. City Architect. Dep. £1 1s.

Manchester T.C.—(1) Construction war time day nursery, Wythenshawe; (2) Conversion of premises at Withington into war time day nursery. City Architect. Dep. £1 1s. each.

OCTOBER 27.

Devizes T.C.—For preparation of foundations and erection of "Nashcrete" hut as British Restaurant. A. W. Jakeway, B. S.

OCTOBER 29.

Monkstown, Cork.—Erection of St. Finbarr's National School for Commissioners of P.W. G. P. Fagan, Sec., Office of P.W., Dublin. Dep. £1.

PAINTING, ELECTRIC LIGHTING, HEATING, &c.

OCTOBER 26.

Notts C.C.—Exterior painting and interior decoration of nursery block. Southwell County Institution. County Architect, Shire Hall. Dep. £1 1s.

ROAD, SEWERAGE AND WATER WORKS.

NOVEMBER 2.

Bilston T.C. — Laying three miles of steel piping, etc. A. V. Williams, T. C., Town Hall. Dep. £2.

ENGINEERING, IRON AND STEEL.

OCTOBER 21.

Wenlock T.C.—Construction of pumping station, booster station, two lengths of spun-iron water main 3 in. dia., and incidental works. A. H. S. Waters, M.Inst.C.E., 25, Temple-row, Birmingham, 2. Dep. £2 2s.

PUBLIC APPOINTMENTS.

OCTOBER 21.

Ealing T.C.—Two Temporary Architectural Assistants. R. H. Wanklyn, T. C.

OCTOBER 24.

Cambridgeshire E.C.—Full-time Teacher in Building Dept. at Technical College. Education Secretary, Shire Hall, Cambridge.

***East Ham E.C.**—Instructor in Brickwork in School of Building. A. A. Garrard, Secretary for Education, Education Office, Town Hall Annexe, Barking-rd., East Ham.

OCTOBER 26.

***Cardiff E.C.**—Temporary Assistant Lecturer at Welsh School of Architecture. W. J. Williams, D. of E., City Hall, Cardiff.

***Manchester College of Technology.**—Assistant Lecturer in Building. £300-£400. James Dear, Registrar.

Mansfield Woodhouse U.D.C.—Temporary Assistant Surveyor. A. Mayhall, C. and Accountant.

A.R.P. SCHEMES

LONDON.

St. Marylebone B.C. — B.C. accepted following tenders for strengthening of surface shelters: Geo. Shaw, Ltd., £1,465; A. Roberts & Co., Ltd., £1,315; White & Johnson, Ltd., £1,018; Sims & Russell, Ltd., £739; John Lewis Buildings, Ltd., £1,421.

PROVINCIAL.

Barrow-in-Furness.—T.C. propose erection of auxiliary fire station.

Dukinfield.—T.C. propose: Strengthening 72 domestic surface shelters; erection of six concrete static water tanks on selected points.

Eccles.—T.C. propose blacking-out of gymnasium and dining-hall at Winto Senior school and blacking-out all schools in the area.

Essex.—Following civil defence works to be executed by C.C.: adaptations at Brightlingsea F.A.P. as gas cleansing station, at £948; erection of personnel cleansing station at Chelmsford, at £1,223; erection of cleansing station at Thundersley, at £527; accommodation at three depots, Brentwood sub-area, at £1,431, also report centre, at £466, and F.A.P., at £382; public cleansing station, Waltham Holy Cross sub-area, £765; protected sleeping accommodation, Horn-la. depot, Wanstead, at £1,663 and at Eagle-la. depot at £1,774.

Hazel Grove and Bramhall. — U.D.C. propose fire station. Plans by J. F. Andrews, S.

Llanrwst.—U.D.C. approved alterations to fire station.

Montgomery.—T.C. approved plans for structural alterations to fire station.

Newcastle-under-Lyme.—T.C. accepted tender, at £267, of Madew & Wardle, Ltd., Central Works, Lower-st., for alterations to central fire station, and for strengthening of communal domestic shelters, the tender of Cousens & Allport, Moorlands-rd., Burslem, Stoke-on-Trent, has been accepted.

Old Fletton.—U.D.C. propose additional public shelters.

Prestwich.—T.C. accepted tender of F. W. Sambrook, 7, Cavendish-rd., Kersal, Salford, for structural alterations, adaptation and strengthening of basement of premises for first-aid party depot and central stores.

Workington.—Cumberland C.C. propose adaptation of public baths as cleansing station.

SCOTTISH.

Bellshill.—Plans prepared for decontamination centre, the architect being William Watt, Albert-st., Motherwell.

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PAYMENT BY RESULTS

REGIONAL ADVISERS.

THE Minister of Works and Planning has appointed Payment by Results Advisers to six Regions covering the whole of Great Britain. These Advisers will deal expeditiously with all problems arising on sites and give guidance where there has been little or limited experience in working the system. Advisers are available to help any contractor who may need assistance in connection with the operation of the scheme on any particular site. Any contractor who wishes to consult a Regional Adviser should communicate with him at one of the following headquarters addresses:—

HOME COUNTIES (4, 5, 6 and 12): Bedford, Cambridge, Essex, Hertford, Huntingdon, Norfolk, Suffolk, London, Hants, Berks, Bucks, Oxon, Dorset, Kent, Surrey and Sussex—Drake House, Dolphin-square, London, S.W. (Tel.: Victoria 4477)—F. L. HOTHERSALL.

SOUTH WEST AND SOUTH WALES (7 and 8 (South): Gloucester, Wiltshire, Somerset, Devon, Cornwall, Monmouth, Glamorgan, Carmarthen, Pembroke, Cardigan, Radnor—23, Richmond Hill, Bristol, 8 (Tel.: Bristol 38457)—F. W. E. VANSTONE.

MIDLANDS AND N. MIDLANDS (9 and 3): Worcester, Warwick, Stafford, Shropshire, Hereford, Lincoln, Leicester, Nottingham, Rutland, Soke of Peterborough, Northampton and Derby—Somerset House, Temple-street, Birmingham (Tel.: Midland 6561)—O. W. GILMORE.

NORTH AND NORTH EAST (1 and 2): Northumberland, Durham, North, East and West Riding of Yorkshire—40, Wetherby-road, Leeds (Tel.: Leeds 66892)—J. V. NIMMO.

NORTH WEST AND NORTH WALES (10 and 8 North): Cheshire, Lancashire, Westmorland, Cumberland, Anglesey, Caernarvon, Denbigh, Flint, Merioneth, Montgomery—72-76, Newton-street, Manchester (Tel.: Manchester Central 2191)—W. W. BROWNE.

SCOTLAND: All Scotland—Dunedin House, 102, George-street, Edinburgh (Tel.: Edinburgh 34681)—A. A. MCLINTOCK.

RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 1st FEBRUARY, 1942

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors]

	Crafts-men.	Lab-ourers.		Crafts-men.	Lab-ourers.		Crafts-men.	Lab-ourers.		Crafts-men.	Lab-ourers.
Aberavon	1/11	1/6½	Clitheroe	1/11	1/6½	Isle of Thanet	1/9	1 4½	Saxmundham	1/7½	1/3
Aberdare	1/11	1/6½	Cobham (Surrey)	1/10	1/5½	Isle of Wight	1/8½	1/4½	Scarborough	1/10½	1/5
Abergavenny	1/11	1/6½	Colchester	1/10½	1/5½	Keighley	1/11	1/6½	Scunthorpe	1/11	1/6
Abingdon	1/9½	1/5	Colwyn Bay	1/10	1/5½	Kenilworth	1/11	1/6½	Selby	1/11	1/6½
Accrington	1/11	1/6½	Congleton	1/10½	1/5½	Kettering	1/11	1/6½	Sevenoaks	1/9½	1/5
Aldeburgh	1/7½	1/3½	Coventry	1/11	1/6½	Kidderminster	1/10½	1/5½	Sheerness	1/9	1/4½
Aldershot	1/9½	1/5	Cranbrook	1/9	1/4½	King's Lynn	1/9	1/4½	Sheffield	1/11	1/6½
Alfreton	1/11	1/6½	Cranleigh	1/9	1/4½	Kirkham	1/11	1/6½	Shipley	1/11	1/6½
Alnwick	1/10½	1/5½	Crawley	1/9	1/4½	Knowle	1/10½	1/5½	Shoeburyness	1/10½	1/5½
Altrincham	1/11	1/6½	Crewe	1/10½	1/5½	Lancaster	1/11	1/6½	Shoreham	1/10	1/5½
Amble	1/10½	1/5½	Cromer	1/8	1/4	Leamington	1/11	1/6½	Shrewsbury	1/10½	1/5½
Amersham	1/9½	1/5	Crowborough	1/9	1/4½	Leatherhead	1/10	1/5½	Sittingbourne	1/9	1/4½
Ammanford	1/11	1/6½	Cuckfield	1/9	1/4½	Leeds	1/11	1/6½	Skegness	1/10	1/5½
Andover	1/9	1/4½	Darlington	1/11	1/6½	Leicester	1/11	1/6½	Sleaford	1/9½	1/5
Ardingly	1/9	1/4½	Darwen	1/11	1/6½	Leighton Buzzard	1/8	1/4	Slough	1/10	1/5½
Arundel	1/9	1/4½	Daventry	1/9½	1/5	Letchworth	1/10	1/5½	Southampton	1/10½	1/5½
Ascot	1/9	1/4½	Deal	1/9	1/4½	Lewes	1/9	1/4½	Southend-on-Sea	1/10½	1/5½
Ashby-de-la-Zouch	1/11	1/6½	Denbigh	1/10	1/5½	Lichfield	1/10	1/5½	Southport	1/11	1/6½
Ashford (Kent)	1/9	1/4½	Derby	1/11	1/6½	Lincoln	1/11	1/6½	South Shields	1/11	1/6½
Ashford (Middlesex)	1/11	1/6½	Devizes	1/8	1/4	Littlehampton	1/9	1/4½	Spalding	1/9	1/4½
Ashington	1/10½	1/5½	Dewsbury	1/11	1/6½	Liverpool	‡$2/1	¶	Stafford	1/10½	1/5½
Ashtead	1/11	1/6½	Didcot	1/9	1/4½	Llandudno	1/10	1/5½	Staines	1/10	1/5½
Ashton-under-Lyne	1/11	1/6½	Diss	1/7½	1/3½	Llanelly	1/11	1/6½	Stamford	1/10	1/5½
Aylesbury	1/9	1/4½	Doncaster	1/11	1/6½	London—			Stevenage	1/10	1/5½
Aylsham	1/8	1/4	Dorchester	1/8½	1/4½	12m. radius	*2/0½	1/7½	Stockport	1/11	1/6½
Bagshot	1/9	1/4½	Dorking	1/9½	1/5	12-15m. radius	*2/0	1/7	Stockton-on-Tees	1/11	1/6½
Banbury	1/9	1/4½	Dover	1/9	1/4½	Long Eaton	1/11	1/6½	Stoke-on-Trent	1/11	1/6½
Barnsley	1/11	1/6½	Dovercourt	1/9	1/4½	Longton	1/11	1/6½	Stourbridge	1/11	1/6½
Barnstaple	1/9	1/4½	Driffield	1/9½	1/5	Loughborough	1/11	1/6½	Stourport	1/10½	1/5½
Barrow-in-Furness	1/11	1/6½	Droitwich	1/10½	1/5½	Louth	1/9½	1/5	Stowmarket	1/8	1/4
Barry	1/11	1/6½	Dudley	1/11	1/6½	Lowestoft	1/9	1/4½	Stratford-on-Avon	1/10	1/5½
Basingstoke	1/9	1/4½	Dunstable	1/9½	1/5	Luton	1/10½	1/5½	Stroud	1/10	1/5½
Bath	1/10½	1/5½	Durham City	1/11	1/6½	Macclesfield	1/10½	1/5½	Sunderland	1/11	1/6½
Batley	1/11	1/6½	Eastbourne	1/10	1/5½	Maidenhead	1/10	1/5½	Sutton Coldfield	1/11	1/6½
Beaconsfield	1/9½	1/5	E. Glam. (Mon. Val.)	1/11	1/6½	Maidstone	1/9½	1/5	Swaffham	1/7½	1/3½
Beccles	1/7½	1/3½	East Grinstead	1/9	1/4½	Malvern	1/9½	1/5	Swanage	1/9	1/4½
Bedford	1/10½	1/5½	Edenbridge	1/9	1/4½	Manchester	1/11	1/6½	Swansea	1/11	1/6½
Berkhamsted	1/9	1/4½	Ely	1/8	1/4	Manningtree	1/8	1/4	Swindon	1/9½	1/5
Berwick	1/10½	1/5½	Epping	1/11	1/6½	Mansfield	1/11	1/6½	Tamworth	1/10½	1/5½
Beverley	1/11	1/6½	Exeter	1/10½	1/5½	March	1/8	1/4	Taunton	1/9½	1/5
Bexhill-on-Sea	1/9½	1/5	Exmouth	1/9½	1/5	Margate	1/9	1/4½	Tenterden	1/9	1/4½
Bideford	1/9	1/4½	Fakenham	1/8	1/4	Market Harborough	1/10	1/5½	Thames Haven	1/11	1/6½
Biggleswade	1/9	1/4½	Falmouth	1/9½	1/5	Matlock	1/9½	1/5	Thetford	1/8½	1/4½
Billericay	1/8½	1/4½	Fareham	1/10	1/5½	Melton Constable	1/7½	1/3½	Thorpe Bay	1/10½	1/5½
Birchington	1/9	1/4½	Faversham	1/9	1/4½	Melton Mowbray	1/10	1/5½	Todmorden	1/11	1/6½
Birkenhead	‡$2/1	¶	Felixstowe	1/10	1/5½	Merthyr	1/11	1/6½	Tonbridge	1/9½	1/5
Birmingham	†1/11	1/6½	Filey	1/9½	1/5	Middlesbrough	1/11	1/6½	Torquay	1/10½	1/5½
Bishop Auckland	1/11	1/6½	Fleetwood	1/11	1/6½	Middleton	1/11	1/6½	Totnes	1/9	1/4½
Bishop's Stortford	1/10	1/5½	Flint	1/11	1/6½	Middlewich	1/10½	1/5½	Trowbridge	1/8	1/4
Blackburn	1/11	1/6½	Folkestone	1/9	1/4½	Milford Haven	1/9½	1/5	Truro	1/8½	1/4½
Blackpool	1/11	1/6½	Frinton-on-Sea	1/9	1/4½	Morecambe	1/11	1/6½	Tunbridge Wells	1/9½	1/5
Blyth	1/11	1/6½	Frome	1/8	1/4	Morley	1/11	1/6½	Uppingham	1/10½	1/5½
Bognor Regis	1/9	1/4½	Gainsborough	1/10	1/5½	Mundesley	1/8	1/4	Uttoxeter	1/10	1/5½
Bolton	1/11	1/6½	Gateshead	1/11	1/6½	Nantwich	1/10½	1/5½	Wakefield	1/11	1/6½
Bournemouth	1/10	1/5½	Gillingham (Kent)	1/10	1/5½	Nelson	1/11	1/6½	Walsall	1/11	1/6½
Bracknell	1/9	1/4½	Glossop	1/11	1/6½	Newark-on-Trent	1/10½	1/5½	Walsden	1/11	1/6½
Bradford	1/11	1/6½	Gloucester	1/10½	1/5½	Newbury	1/9	1/4½	Walton-on-Naze	1/9	1/4½
Bradford-on-Avon	1/8	1/4	Godalming	1/9	1/4½	Newcastle-on-Tyne	1/11	1/6½	Ware	1/10½	1/5½
Braintree	1/9	1/4½	Goole	1/11	1/6½	Newcastle-u.-Lyme	1/11	1/6½	Warminster	1/8	1/4
Brentwood	1/10½	1/5½	Gosport	1/10½	1/5½	New Forest	1/9	1/4½	Warrington	1/11	1/6½
Bridgwater	1/9½	1/5	Grantham	1/10	1/5½	Newmarket	1/9	1/4½	Warwick	1/11	1/6½
Bridlington	1/10½	1/5½	Gravesend	1/10½	1/5½	Newport, Mon.	1/11	1/6½	Wellington R.D.	1/10½	1/5½
Brighouse	1/11	1/6½	Great Yarmouth	1/9	1/4½	Newport Pagnell	1/9	1/4½	Welwyn	1/10	1/5½
Brighton	1/10	1/5½	Grimsby	1/11	1/6½	Northampton	1/11	1/6½	Welwyn Gar. City	1/11	1/6½
Bristol	1/11	1/6½	Guildford	1/9	1/4½	Norwich	1/11	1/6½	Wells (Norfolk)	1/7½	1/3½
Broadstairs	1/9	1/4½	Guilsborough	1/9½	1/5	Nottingham	1/11	1/6½	West Bromwich	1/11	1/6½
Bromsgrove	1/10½	1/5½	Halifax	1/11	1/6½	Nuneaton	1/11	1/6½	Westcliff-on-Sea	1/10½	1/5½
Buckley	1/11	1/6½	Hanley	1/11	1/6½	Oakham	1/9½	1/5	Weston-super-Mare	1/10	1/5½
Bungay	1/7	1/3½	Harpenden	1/10	1/5½	Oldham	1/11	1/6½	Weybridge	1/10	1/5½
Burnham-on-Crouch	1/7½	1/3½	Harrogate	1/11	1/6½	Ormskirk	1/11	1/6½	Weymouth	1/9	1/4½
Burnley	1/11	1/6½	Hartlepools	1/11	1/6½	Oxford	1/10½	1/5½	Whitby	1/10	1/5½
Burslem	1/11	1/6½	Harwich	1/9	1/4½	Oxted	1/9½	1/5	Whitstable	1/9	1/4½
Burton-on-Trent	1/11	1/6½	Haslemere	1/9	1/4½	Paignton	1/10½	1/5½	Widnes	1/11	1/6½
Bury	1/11	1/6½	Hastings	1/9	1/4½	Peterborough	1/10½	1/5½	Wigan	1/11	1/6½
Bury St. Edmunds	1/8½	1/4½	Hatfield	1/10½	1/5½	Plymouth	1/11	1/6½	Wigton	1/9½	1/5
Buxton	1/10½	1/5½	Haywards Heath	1/9	1/4½	Pontefract	1/11	1/6½	Willington	1/11	1/6½
Byfleet	1/9½	1/5	Hednesford	1/10½	1/5½	Pontypridd	1/11	1/6½	Wilmslow	1/11	1/6½
Cambridge	1/11	1/6½	Hemel Hempstead	1/10	1/5½	Port Talbot	1/11	1/6½	Winchester	1/9½	1/5
Canterbury	1/9	1/4½	Henley-on-Thames	1/9	1/4½	Portsmouth	1/10½	1/5½	Windermere	1/9½	1/5
Cardiff	1/11	1/6½	Hereford	1/9	1/4½	Preston	1/11	1/6½	Windsor	1/10	1/5½
Carlisle	1/11	1/6½	Herne Bay	1/9	1/4½	Pulborough	1/9	1/4½	Wisbech	1/8½	1/4½
Carnforth	1/11	1/6½	Hertford	1/10½	1/5½	Ramsgate	1/9	1/4½	Witham	1/9	1/4½
Castleford	1/11	1/6½	Heysham	1/11	1/6½	Reading	1/10½	1/5½	Woking	1/9½	1/5
Caterham	1/11	1/6½	Hitchin	1/10	1/5½	Redditch	1/10½	1/5½	Wokingham	1/9	1/4½
Chard	1/8	1/4	Hoddesdon	1/10½	1/5½	Redhill	1/9½	1/5	Wolverhampton	1/11	1/6½
Chatham	1/10	1/5½	Holt (Norfolk)	1/7½	1/3½	Ripon	1/9½	1/5	Woodbridge	1/8½	1/4½
Chelmsford	1/10½	1/5½	Horley	1/9	1/4½	Rochdale	1/11	1/6½	Worcester	1/10½	1/5½
Cheltenham	1/10	1/5½	Horsham	1/9	1/4½	Rochester	1/10	1/5½	Workington	1/9½	1/5
Chepstow	1/10½	1/5½	Horwich	1/11	1/6½	Rugby	1/11	1/6½	Worksop	1/10½	1/5½
Chertsey	1/10	1/5½	Huddersfield	1/11	1/6½	St. Albans	1/10½	1/5½	Worthing	1/9	1/4½
Chester	1/11	1/6½	Hull	1/11	1/6½	St. Helens	1/11	1/6½	Wrexham	1/10½	1/5½
Chesterfield	1/11	1/6½	Hunstanton	1/8	1/4	St. Neots	1/8½	1/4½	Wroxham	1/8½	1/4½
Chichester	1/9	1/4½	Huntingdon	1/8½	1/4½	Saffron Walden	1/8	1/4	Wycombe	1/10	1/5½
Chorley	1/11	1/6½	Ilfracombe	1/9	1/4½	Salisbury City	1/8½	1/4½	Wymondham	1/8	1/4
Cirencester	1/8½	1/4½	Ingatestone	1/9½	1/5	Salisbury Plain	1/10	1/5½	Yeovil	1/9½	1/5
Clacton	1/9	1/4½	Ipswich	1/10½	1/5½	Sawbridgeworth	1/9½	1/5	York	1/11	1/6
Cleveleys	1/11	1/6½									

* Painters ½d. less than other Craftsmen. † Plus 2d. per working day. ‡ Plasterers 2/1½.

¶ Tradesman's Labourers, 1/7½. Navvies and General Labourers, 1/6½.

§ Joiners, Plumbers, Bricklayers, Tilers and Masons receive 2/- per week or 4d. per day Tool Money.

NOTE.—Carpenters and Joiners in all Towns and Districts (other than Birkenhead and Liverpool) receive 2d. per day Tool Allowance.

For Building Trade Wages in Scotland, see page 340.

PRICES CURRENT OF MATERIALS*

Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry. The prices ...t woods are for cash on delivery. At present linseed oil and genuine spirits of turpentine can only be supplied in cans in small quantities.

BRICKS, &c.

	£ s. d
...Hard Stocks	4 13 0
...ed Hard Stocks	4 6 0
...Stocks	3 13 0
...Rough Stocks	3 7 0
...mon Stocks	2 17 6

...loaded free into lorry at the works. The question ...ge is still very difficult and prices must be obtained ...job to job. *In addition*, there will be the Levy ...the Bricks (Charges) Order, 1942, of 3s. per 1,000.

	King's Cross Station per 1,000	To sites in W.C. District per 1,000
2½ in. Phorpres. A discount of 6d. 1,000 only monthly account.	s. d.	s. d.
...	56 9	63 3
...	58 9	65 3
...e Bullnose	76 9	83 3
...	76 9	83 3
...	77 3	83 3

...e Midhurst Best selected (delivered £ s. d.
...ndon site) ... 5 10 0
...blue Pressed Staffs. (London Stns.) 11 12 0
...Bullnose (London Stns.) ... 12 2 0
...Wire Cuts (London Stns.) ... 10 9 6
...Stourbridge Fire Brick (London Stns.) :—
£ s. d.
...in. ...10 0 0 3 in. ... 12 0 0
...ish Bricks. (London Stns.)
...ber White Ivory D'ble Str'tch'rs 36 10 0
...ed Salt Glazed D'ble Headers 33 10 0
...ircher ...28 0 0 One side&two ends 37 10 0
...ers ...27 10 0 Two sides&one end 38 10 0
...ian, Bullnose Splays and
...ed 4½ in. Flats 34 10 0 Squints ... 36 0 0
...and Quality, £2 per 1,000 less than best. Cream ...buff, £2 extra over white. Other colours. Hard ...s £5 10s. extra over white.
...ty Levy on Bricks. 3/- per 1,000 except Glazed Bricks.

PARTITION SLABS.

Delivered on site London Area.

"Phorpres" Hollow Partition Blocks.

	s. d.		s. d.
...per yd. sup.	2 8	3" per yd. sup. ..	3 6
" "	2 11	4" " " ..	3 10

Clinker Concrete.

...per yd. sup.	1 11	3" per yd. sup. ..	2 6
" "	2 3	4" " " ..	3 6

Cranham Terra Cotta.

12 x 9 x 2" per yd. super ...	2 8
12 x 9 x 2½ " " ...	2 11
12 x 9 x 3" " " ...	3 6
12 x 9 x 4" " " ...	3 10

Hempstead—Keyed Two Sides.

9" x 2"	2 8	12" x 9" x 3"	3 6
9" x 2½"	2 11	12" x 9" x 4"	3 10

Per yard super d/d. Free on site, London.
...ce 2d. for smooth one side, and 4d. for smooth both ...

STONE.

...n Stone.—Delivered in railway trucks ... Westbourne Park, Paddington, G.W.R., or ...outh Lambeth, G.W.R., per ft. cube ...

	s. d.
...n Stone—Random Block—	
...Free on rail at Seaton Station.. per ft cube	2 3
...Delivered free on rail Nine Elms, S.R. "	3 1½

...Selected approximate size one way, 1d. per ...ubic ft. extra, selected approximately ...three sizes or for special work, 3d. per ...ubic ft. extra.

...tland Stone—
...Brown Whitbed, in random blocks of 20 ft. ...average, delivered in railway trucks at ...Nine Elms, S. Rly., South Lambeth ...Station, G.W.R., and Westbourne Park, ...Paddington, G.W.R., ...per ft. cube 4 7
...Do. do. delivered on road waggons as above ...stations .....per ft. cube 4 7
...White basebed, 3d. per ft. cube extra.
...Note.—1d. per ft. cube extra for every ft. ...over 20 ft. *average* and ¼d. beyond 30 ft.

...yton-Wood Stone—
...F.O.R. Quarries, Wirksworth, Derbyshire, s. d.
...Random blocks from 10 ft. and over P.ft.cb. 13 2
...Sawn two sides ... 26 11
...Sawn three or four sides ... 31 11

...nic Stone, Blue—*Robin Hood Quality.*
...Delivered at any Goods Station, London.

...in. sawn two sides landings to sizes (under 30 ft. super) .....per ft. super	5 6
...in. rubbed two sides, ditto .... "	6 3
...in. sawn two sides slabs (ran-dom sizes) ... "	2 7
...in. to 2½ in. sawn one side slabs (random sizes) (paving) ..... "	1 8½
...in. to 2 in. ditto ..... "	1 4½

...ano York—
...Delivered at any Goods Station, London.

...Scrappled random blocks .....per ft. cube	6 10
...in. sawn two sides landings to sizes (under 40 ft. super) .....per ft.super	5 7½
...in. rubbed two sides, ditto .... "	6 9
...in. sawn two sides slabs (random sizes) ... "	3 5
...in. ditto ditto ..... "	2 8
...self-faced random flags.....per yd. super	8 9

CAST STONE.

...livered in London area in full van loads, per ft. ...cube : Plain, 7s. 6d. Moulded, 8s. 6d. ...Small section cills and copings, 11s.

SAND.

Thames Ballast	10s. 0d. per yd.	delivered 2 miles radius Paddington.
Pit Ballast	9s. 6d. " "	
Pit Sand	12s. 0d. " "	
Washed Sand	13s. 0d. " "	
¾ in. Shingle	10s. 6d. " "	
¾ in. Broken Brick	16s. 0d. " "	
Pan Breeze	10s. 0d. " "	

CEMENT.

Best British Portland Cement. Standard Specification, delivered London area.

	£ s. d.
6 ton loads and upwards site ..... per ton	2 11 0
1 ton to 6 tons site ...	2 14 0
Alongside Vauxhall in 80 ton lots ...	2 8 6
"Ferrocrete" Rapid Hardening Cement—	
6 ton loads and upwards site ...	2 17 0
1 ton to 6 tons site ...	3 0 0
Alongside Vauxhall in 80 ton lots ...	2 14 6
"Aquacrete" Water Repellent, "Blue Circle" cement, 30s. per ton on ordinary "Blue Circle" prices.	
"Colorcrete" Nos. 1 and 2. Coloured rapid Hardening Portland Cement in 6 ton lots ..	4 11 0
"Colorcrete" not rapid hardening, according to colour, from £7 to £15 10s. per ton.	
"Snowcrete" White Portland Cement (in free paper bags) ...	10 5 0
"417" Cement (Ultra Rapid Hardening) Delivered Site London Area in 6 tons lots and upwards ...	3 11 0

Plus packages at current prices.

Super Cement (Waterproof), bags extra 4 1 0

Note.—Jute sacks charged at 35s. 6d. nett per ton (20 sacks) for quantities of or exceeding one ton.

Less than one ton 1s. 9½d. nett each.

Credit 1s. 6d. nett each when returned in good condition within two weeks.

	£ s. d.		£ s. d.
Romance ment	8 10 0	Keene's Cement, White	7 0 0
Parian Cement	7 0 0	" " Pink	6 10 0

Cemen tone Colours for cement according to tints per cwt. from £3 5s. 0d.

SLATES.

First quality slates from Penrhyn or Portmadoc, carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12	45 5 0	18 by 10	24 0 0
22 by 12	37 17 6	18 by 9	22 12 6
22 by 11	34 2 6	16 by 10	21 10 0
20 by 12	33 0 0	16 by 8	16 12 6
20 by 10	30 5 0		

PLASTER.

	£ s. d.		£ s. d.
Coarse, Pink	4 0 0	Sirapite, Coarse..	4 5 6
" White ..	4 7 6	" Finish ..	4 13 6
Pioneer	4 5 0		

Above prices for 4-ton loads and over London Area.

Best Ground Blue	Grey Stone Lime 2 17 6
Lias Lime 3 7 6	Chalk Lime 2 17 6

Granite Chippings 1 15 0 Hair per cwt. 3 5 0

Note.—Sacks are charged 1s. 9d. each, and credited 1s. 6d. if returned in good condition within three months, carriage paid.

Stourbridge Fireclay in paper bags, £2 12s. 6d. in 6-ton lots at railway depot.

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons..... Per 1,000 f.o.r. London.

Best machine-made tiles from Broseley or Staffordshire district	£5 15 0
Ditto hand-made ditto	6 18 6
Ornamental ditto	7 5 0
Hip and valley tiles (per dozen) { Hand-made	0 14 0
{ Machine-made	0 13 6

HARD WOOD.

1 INCH AND UP THICK.

Average price for prime quality. Foot cube.

	s. d.		£ s. d.
Dry English Wainscot Billets..	16 0	to	0 18 0
Dry Slavonian Billet Wainscot ..	17 0	to	1 0 0
Dry Cuba Mahogany logs	21 0	to	1 4 0
Square-edged Honduras Mahogany ...			0 16 6
Log Cut Honduras Mahogany ...			0 17 6
American Figured Oak ...			0 13 0
American Plain Oak ...			0 12 6
Jap. Figured Oak ...			0 13 0
Jap. Plain Oak ...			0 12 6
Teak ...			0 15 6
American Whitewood ...			0 12 6
African Whitewood ...			0 8 0
African Mahogany ...			0 11 0
Australian Walnut ...			0 19 0
Australian Silky Oak ...			0 12 6
Best Scotch glue ...		per cwt.	5 0 0
Liquid glue ...		per gallon	1 2 0

SOFT WOOD.

Merchantable British Columbian Pine Minimum.	Maximum.
Scantlings in imported sizes, £ s. d.	£ s. d.
2 in. by 3 in. to 4 in. by 11 in. 43 10 0	53 0 0

PLANED BOARDS.

Prime Clear British Columbian Pine.

Per standard.

	£ s. d.
1 in. by 11 in. } 1 in. by 9 in. } ...	67 10 0

Per square.

	s. d.
1 in. plain edge flooring ...	53 0
1¼ in. ditto ...	66 6
1 in. tongued and grooved ...	53 0
1¼ in. ditto ...	66 6

MATCHING. Per square.

	s. d.
⅝ in. ...	37 6
¾ in. ...	42 0
1 in. ...	55 0

PLUMBERS' BRASS WORK.

Delivered in London.

M.O.H.

S.D. Bibcocks, Crutch Head, for Iron

½ in	¾-in.
30/-	44/6 per doz.

Toilet Bib Cocks for Iron.

½ in.	¾ in.
42/-	60/- per doz

S.D. Stop Cocks for Iron.

¼ in.	⅜ in.	1 in.	1¼ in.	1½ in.	2 in.
29/6	45/-	81/6	195/-	272/-	453/- per doz

S.D.S. Cocks with two Unions for Lead.

¼ in.	⅜ in.	1 in.	1¼ in.	1½ in.	2 in.
45/-	77/6	123/-	240/-	372/-	624/- per doz

Double Nut Boiler Screws.

¼ in.	⅜ in.	1 in.	1¼ in.	1½ in.	2 in.
5/6	6/8	11/-	24/-	36/-	56/- per doz

Heavy Croydon Ball Valves.

¼ in.	⅜ in.	1 in.	1¼ in.	1½ in.
36/-	65/-	98/-	195/-	264/- per doz.

Caps and Screws.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
11/9	14/5	21/6	37/9	54/-	59/6 per doz

Brass Sleeves.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/9	13/6	25/-	37/-	46/- per doz.

Lead Traps with Brass Cleaning Screws.

	1½×6 lbs.	1½×6 lbs.	2×7 lbs.	3×7 lbs.
Lead P.	26/-	34/-	55/-	92/- per doz.
Lead S.	34/-	41/-	67/	115/- per doz.

Solder.—Plumbers', 1/5 . Tinmen's, 1/9. Blow pipe 2/- per lb.

* The information given on this page has been specially compiled for The Builder, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, no. necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information. Prices are subject to 2½ per cent. cash discount.

PRICES CURRENT OF MATERIALS—(*contd.*)

METALS.

JOISTS, GIRDERS, &c., to LONDON STATION PER TON—

	£ s. d.
R.S. Joists, cut and fitted	£23 10 0
Plain Compound Girders	26 0 0
Stanchions	28 10 0
In Roof Work	33 10 0

NOTE.—These prices are for standard pieces and not special pieces of an awkward nature.

MILD STEEL ROUNDS.—To London Stations, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	23 0 0	⅜ in. to ½ in.	21 10 0
⅝ in.	22 0 0	⅝ in. to 2¼ in.	21 0 0

WROUGHT TUBES AND FITTINGS.

Deliveries from works.

Deliveries from London stock further 2½ % gross.

	Tubes. ¼"/6"	Tubulars. ¼"/6"	10/17 and 19/24	Flanges. ¼"/2"	2½"/6"
	%	%	%	%	%
Light weight	51½	—	47½	51	57½
Heavy weight	44	44	39½	41	49½
Galv.lightweight	40½	—	38½	39½	48½
Galv.heavyweight	31	31	31	29½	41

Tubes and tubulars sizes ¼"/⅛" inclusive, charged extra of 5% less gross.

Fittings. Figs. 25/34 5% less gross discount.

Terms.—Nett cash end of month following date of invoice. Carriage paid on lots of £10 nett value and over.

C.I. HALF-ROUND GUTTERS—London Prices ex Works. per yd. in 6 ft. lengths.

	Gutters.	Nozzles.	Stop ends.
3 in.	1/5½	1/2½	4½d.
3½ in.	1/7	1/4	4½d.
4 in.	1/7	1/6	6½d.
4½ in.	1/8½	1/8½	7½d.
5 in.	2/0½	2/0	9d.

O.G. GUTTERS.

3 in.	1/10½	1/7½	5d.
3½ in.	2/1½	1/7½	6½d.
4 in.	2/1½	1/8½	7½d.
4½ in.	2/2½	1/11½	8½d.
5 in.	2/8½	2/3	10½d.

RAIN WATER PIPES.

Per yd. in 6 fts.	Pipe	Bends. Stock angles.	Branches.
2 in.	2/2½	1/5½	2/2
2½ in.	2/3½	1/8½	2/7½
3 in.	2/8½	2/1½	3/2
3½ in.	3/2½	2/6½	3/7½
4 in.	3/8½	3/0½	4/5

NETT PRICES.

Tonnage allowance—4-ton lots, 5 per cent.
2-ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES—London Prices, ex Stock.

Per yd. in 6 fts.	Pipe.	Bends.	Branches.
2 in.	3/9½	2/7½	3/2
2½ in.	4/5	2/10½	3/11½
3 in.	4/9	3/2	4/8½
3½ in.	4/10½	3/11½	5/5½
4 in.	5/3½	4/5	6/3½

L.C.C. COATED DRAIN PIPE.

	Pipe.	Bends.	Branches.
3 in. per yd. in 9 fts.	5/5	6/3	9/11
cwt. qr. lbs.			
4 in. 1 1 20	7/11	7/1	12/6
5 in. 1 2 22	9/7	12/9	19/3
6 in. 2 0 6	11/5	14/8	25/6

Gaskin, 75/- per cwt.

	Per ton basis in London. £ s. d.
IRON.—Staffordshire Crown, Merchant quality	18 7 6
IRON.—Staffordshire Marked Bars	19 7 6
Mild Steel Bars	19 15 0
Mild Steel Hoops	21 10 0
	Ex Merchant's Stock, per ton (two-ton lots).
Soft Steel Sheets, C.R. and C.A.—	
20 gauge	24 17 6
24 gauge	25 2 6
26 gauge	25 17 6
Galvanised Corrugated Sheets, 6 ft. to 9 ft.	
20 gauge	27 0 0
24 gauge	27 10 0
26 gauge	28 15 0
Galvanised Flat Sheets, C.R. and C.A.—	
20 gauge	28 10 0
24 gauge	29 0 0
26 gauge	30 5 0
	Per ton. £ s. d.
Cut Nails, 3 in. and up	28 10 0

ALL NETT.

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 2s. 4d. to 2s. 7d. per foot super.

PAINTS, &c.

	£ s. d.
Raw Linseed Oil (5 galls.) .. per gallon	0 5 9
Boiled Linseed Oil (5 galls.) .. „	0 6 0
Genuine Ground English White Lead, per cwt.	3 11 3
Genuine White Lead Paint, 14 lb. tins free, per cwt.	4 15 6
Genuine Red Lead. „	2 18 0
Linseed Oil Putty (Kegs extra) .... „	1 3 3
Size. XD quality ... ftkn.	0 4 9

Turpentine substitute can be obtained and prices vary according to quality from 3/8 gallon upwards.

	£ s. d.
SNOWCEM CEMENT PAINT ..... per cwt.	2 16 0
C.M.C. CAMOUFLAGE PAINT ..... „	2 16 0

BUILDING TRADE WAGES IN SCOTLAND

Following are grade rates authorised by the Scottish N.J.C. from October 1. Every endeav is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classification	A	A1	A2	A3	B
Craftsmen	1/11½	1/11	1/10½	1/10	1/9½
Labourers	1/6	1/5½	1/5½	1/5	1/4½
Aberdeen	A	Dumfriesshire	A2	Inverness	*	Perthshire	
Ayrshire	A	Dundee	A	Inverurie	A1	Peterhead	
Banff	B	Dunoon	A	Kincardineshire	A2	Renfrewshire	
Berwickshire	A2	East Fife	A	Kinross-shire	A	Rothesay	
Bridge of Allan	A	East Lothian	A	Lanarkshire	A	Roxburghshire	
Broughty Ferry	A	Edinburgh	A	Midlothian	A	St. Andrews	
Clackmannanshire	A	Fifeshire	A	Monifieth	A	Selkirkshire	
Doune	A	Forfarshire	A2	Moray and Nairn	B	Stewartry	
Dunblane	A	Glasgow	A	Newport	A	Stirlingshire	
Dumbartonshire	A	Greenock	A	Peeblesshire	A2	Stornoway	
Dumfries	A1	Hamilton	A	Perth	A	Tayport	
						West Lothian	

*This town has its own rates : Masons, 1/8½ ; Carpenters, 1/8½ ; Slaters, 1/8½ ; Plumbers, 1/9 ; Plasterers, but 1/10 is paid owing to the scarcity at present ; Painters, 1/8½ and Labourers, 1/4

The information given in this table is copyright. Rates of wages in England and Wales are given on page 1

VARNISHES, &c.

		Per gallon. £ s. d.
Oak Varnish	Outside	0 16 0
Fine do.	„	0 18 0
Fine Copal	„	1 0 0
Pale Copal	„	1 2 0
Pale Opal Carriage	„	1 6 0
Best do. do.	„	1 14 0
Floor Varnish	Inside	1 0 0
Fine Pale Paper	„	1 0 0
Fine Copal Cabinet	„	1 4 0
Fine Copal Flatting	„	1 2 0
Hard Drying Oak	„	1 0 0
Fine Hard Drying Oak	„	1 1 6
Fine Copal Varnish	„	1 2 6
Pale do.	„	1 14 0
Best do.	„	1 4 6
Best Japan Gold Size	„	1 14 6
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 14 0
Brunswick Black		0 9 6
Berlin Black		0 16 0
Knotting (patent)		0 17 0
French and Brush Polish		0 14 0
Liquid Dryers in Terebene		0 11 0
Cuirass Black Enamel		0 9 0

LEAD, &c.

(Delivered in London.)	Per ton. £ s. d.
LEAD.—Sheet, English, 4 lb. and up	38 0 0
Pipe in coils	38 10 0
Soil pipe	42 10 0
Compo pipe	47 10 0

NOTE.—Country delivery, 20/- per ton extra, lots under 3 cwt. 4/- per cwt. extra and over 3 cwt. and under 5 cwt., 2/6 per cwt. extra. Cut to sizes, 4/- per cwt. extra.

Old lead, ex London area, at Mills ..... per ton } £18 0 0.

The Hall-Mark AYGEE of Craftsmanship

Specify "AYGEE" Metal Windows the Multi Purpose Casement

AYGEE LTD • Metal Window Manufacturers and Light Steel Constructional Engineers

100 WESTMINSTER BRIDGE ROAD, S.E.1

Telephone: Waterloo 6314 (6 lines)

THE SCOTTISH BUILDER

NEW BUILDINGS

BIGGAR.—Plans prepared for alt tions and additions at Carwood Ho Farm, the architect being W. Rankin Ayton-pl., Edinburgh.

LEADHILLS.—D. Stewart, Main Leadhills, has plans in hand for ex sions to offices and shop premises.

NEWMAINS. — Plans prepared alterations and additions, the archi being J. Cunningham, 13, Stewart-st.

GLASS.

ENGLISH SHEET GLASS IN CRATES OF ST SIZES.

ORDINARY GLAZING QUALITY (O.Q.) AND SELE GLAZING QUALITY (S.Q.).

PER FOOT SUPER.

In sizes not exceeding 80 in. long or 48 in. w 110 united inches.

	O.Q.
18 oz. in 300 ft. cases	2½d.
24 oz. „ 200 ft. „	3½d.
26 oz. „ 200 ft. „	4d.
32 oz. „ 200 ft. „	5½d.
24 oz. in 300 ft. cases	3½d.
26 oz. „ 300 ft. „	3½d.
32 oz. „ 300 ft. „	5½d.
Fluted, 21 oz.	9½d.

Extra price according to size and substance for cut from stock.

ENGLISH ROLLED PLATE AND FIGUR CATHEDRAL, ETC., IN CUT SIZES

Over 500 ft. super of all kinds.

Rolled plate, ¼ in.
Rough cast double rolled, ⅛ in.
Rough cast double rolled, ¼ in.
Figured rolled, and Cathedral, white
Figured rolled and Cathedral, tinted
Rolled Sheet
Reeded, Broad Reeded, Cross Reeded and Chevro Reeded, ⅛ in. thick
Rolled plate is the same price as rough cast doubl

Wire Rolled, ¼ in. thick
Wired Cast, ¼ in. thick
Georgian Wired Cast
"Calorex" Sheet, 21 oz.
„ „ 32 oz.
„ Cast, ¼ in. thick
„ „ ⅛ in. thick.
„ „ ¼ in. thick
Non Actinic Glass, ¼ in. thick
„ „ „ ⅛ in. thick.
„ „ „ ¼ in. thick

"VITA" GLASS.

"Vita" Plate Glass, about ⅛ in. thick
To 7 ft. super
Over 7 ft. super
"Vita" Sheet Glass, about 18/20 oz.
Cathedral "Vita" Glass :
¼ in. thickness
⅛ in. „
⅛ in. Georgian Wired "Vita" Glass

GLASS BRICKS. s. d.

P.B. 1—8 in. × 4¼ in. × 3¼ in.	2 9
P.B. 2—5¼ in. × 5¼ in. × 3¼ in.	2 6
P.B. 3—7¼ in. × 7¼ in. × 3¼ in.	3 6
P.B.32—7¼ in. × 7¼ in. × 3¼ in.	3 6
Radiused Corner Bricks to match up with—	
P.B. 2	4 6
P.B. 3	6 6
P.B.32	6 6

RRENT AND PROPOSED NEW BUILDINGS

msgrove.—R.D.C. approved school ing, off Wootton-rd., West Heath, Worcestershire E.C.

leton.—Youth Hostels Association red Castleton Hall for adaptation th hostel.

yshire. — E.C. propose erection of prefabricated hutments at Sutton-Duckmanton as school building.

borough.—U.D.C. approved: Store, Cheaney & Sons, Ltd., boot manu-rers.

sbury.—T.C. propose war-time day ry at Headfield-rd., Thornhill Lees.

field.—Council to erect war-time ry at Baker-st.

ssop. — T.C. propose adaptation of ses at Whitfield for war-time y.

ncashire.—E.C. propose adaptation of ises at Hillside-rd., Longview, sley, for branch library.

ds.—T.C. propose adaptation of mond Hill schools and Salem Baptist el schools for war-time nurseries.

ester. — T.C. propose structural ations to Belgrave house for conver-into war-time day nursery.

ton.—T.C. seeking sanction to re-l waiting-hall, dispensary, kitchen store at Park House Health Centre, 000.

rborough.—F. Baker, York-pl., Scar-ugh, prepared plans for additions for Hunter.

ffield. — T.C. received approval for tation of Sydnope Hall as annexe to Vale Institution, at £1,800.

nderland.—Plans approved for air-shelters, stores, sub-station and con-iences. Architect is G. T. Brown, cott-st., Sunderland.—Matkin & Haw-Barclays Bank-chbrs., Sunderland, architects for alterations and build-of well shaft.

rkington.—T.C. approved: Erection transforming station. Plans by medy & Donkin.

BRITISH RESTAURANTS AND CANTEENS

esterfield. — T.C. approved erec-of single-storey building at St. y's Gate for central B.R., at £5,000.

kinfield.—T.C. instructed B.S. to are plans for extensions to Bates-st. ing depot.

cles.—T.C. approved prefabricated at Liverpool-rd., Patricroft, for B.R.

cles.—T.C. propose installing equip-t at Beech-st., Clarendon-rd., and e-st., schools for dining centres, at

sex.—C.C. approve canteen kitchens schools at £1,614.

tshead.—Canteen proposed at Team ley Trading Estate. Plans by H. Hill, Winchester-st., South Shields.

ttering.—T.C. approved: Extensions canteen for Wilson & Watson, Ltd.; een for Paton & Co.

ncashire.—E.C. approved estimates structural alterations and equipment feeding centres at: Worsley (£341); sworth (£594); Longton, New Longton 34); Kearsley and Little Lever (£319); ton (£309); Ramsbottom (£206); mpton and Royton (£729); Litherland 36); Padiham (£350).

d Fletton.—U.D.C. propose B.R. at ey Hall.

dham. — T.C. propose conversion of tion of Coldhurst Liberal Club pre-es for B.R.

Preston. — T.C. propose conversion of mises at Adelphi-st., for B.R.

uncorn.—Cheshire C.C. propose cook-depot at Halton.

methwick.—E.C. propose canteens for ool feeding centres, at £6,500.

outhall.—T.C. to carry out improve-nts at cafe No. 1 at £715, to plans by

Sunderland.—Extensions to be made to teen for J. L. Thompson & Sons.

Wolverhampton.—T.C. approved: Can-n for Electricity Dept.

TENDERS

The Editor welcomes authentic information for this feature from architects, surveyors or contractors. Items should reach 4, Catherine-street, Aldwych, W.C.2, not later than Tuesday morning.

Tenders for A.R.P. work will be found under "A.R.P. Schemes."

* Denotes *accepted.*
† Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modification.*
¶ Denotes *accepted by H.M. Government departments.*

Birmingham.—For establishment of nursery classes, for E.C.: Billesley school: *C. L. Smith, 4, Oughton-rd., Highgate, Birmingham, £195; Bierton-rd. school: *S. F. Swift & Sons, Ltd., 200, Alcester-st., Birmingham, £125; Cockshut Hill school: *E. G. Brown & Son, Stuarts rd., Stechford, Birmingham, £130; Dulwich-rd. school: *J. R. Deacon, Ltd., Lichfield, £82; Golden Hillock-rd. school: *S. F. Swift & Sons, Ltd., £152; Grove-la. school: *J. & F. Wootton, Ltd., Walsall, £230; Jervoise-rd. school: *W. Lygo & Son, Coronation-rd., Selly Oak, £75; Trescott-rd. school: *C. L. Smith, £343.

Isle of Ely.—Construction of: (a) Bridge; (b) five culverts; for C.C.: (a) *V. Vinnell, Ermine-st., Huntingdon, £1,350; (b) *Melton's, London-rd., Chatteris, Cambridge, £4,112.

Liverpool.—For cleaning and painting (a) City Hospital North, and (b) Olive Mount Children's Hospital for T.C. (a) *Clayton & Dorsman, Ltd., Liverpool, £255; (b) *W. H. Snow, Ltd., Liverpool, £148.

For baffle walls at Belmont-rd. emergency hospital for T.C.: *J. & E. Aspinall, Ltd., Liverpool, £136.

¶London (Air Ministry).—List of new contracts to value of £500 or over for period ended October 3:—

Building work: Thos. Bates & Son, Ltd., Hornchurch, Essex; W. Sindall, Cambridge; Harry Neal, Ltd., Northwood, Middx; W. G. Robson, Ltd., Sheffield, 6; Frank Haslam, Ltd., Doncaster; F. Jackson (Developments), Ltd., Northwood, Middx; Unit Construction Co., Ltd., Reigate, Surrey; Prestige & Co., Ltd., London, S.W.1; A. T. Rowley (London), Ltd., London, N.17; Jones & Sons, Maidenhead, Berks; Percy Bilton, Ltd., London, W.1; N. B. Bell & Co., Ltd., London, S.W.4; B. Pumfrey, Ltd., Gainsborough; Wates, Ltd., London, S.W.16; Henry Martin, Ltd., Northampton.

Civil engineering: Dowsett Engineering Construction, Ltd., Malvern, Worcs; Wm. Tawse, Ltd., Aberdeen.

Air filtration work: Benham & Sons, Ltd., London, W.1.

General maintenance work: John Hunt, Ltd., Gosport, Hants; Pochins (Manchester), Ltd., Manchester; Barvis Partners, Ltd., Brentwood, Essex.

¶London (Air Ministry).—The Directorate of Contracts has placed the following new contracts to the value of £500 or over for the period ended October 10.

Building work: Bosworth & Wakeford, Ltd., Daventry, Northants; Humphreys, Ltd., London, S.W.7; W. E. Chivers & Sons, Ltd., Devizes, Wilts, and Ekins & Co., Ltd., Hertford.

Civil engineering work: Howard Farrow, Ltd., London, N.W.11.

Electrical work: Standard Telephones and Cables, Ltd., London, E.16; General maintenance work: G. Briggs & Co. (Nottingham), Ltd., Nottingham; J. B. Bennett & Co., Kilsyth; Collen Bros., Ltd., Portadown, N. Ireland; A. N. Coles (Contractors), Ltd., Plymouth; Wm. Wright & Son (Lincoln), Ltd., Lincoln; Hiler & Son, Ltd., Hereford; James Miskimmin & Sons, Ltd., Belfast; John Hughes (Contractors), Ltd., Wrexham.

London (Ministry of Works).—Works contracts placed by Ministry of Works and Planning during week ending October 8.

Bucks: Electricity supply, Boro. Electrical Eng., Electricity Dept., Borough of Chepping Wycombe, Frogmore, High Wycombe.

Bucks: H.W. services, F. G. Alden, Ltd., New-rd., Oxford.

Ches.: Heating and h.w. service, Edgar Fritton & Co., Ltd., 295, Chester-rd., Manchester.

Ches.: Building work, J. T. Gresty & Sons, Nantwich, Ches.

Cumberland: Htg. and h.w. services, Cairns (Newcastle), 23, Picton-pl., Newcastle-on-Tyne.

Derby: Electric services, J. & S. Farr, 18/20, Parliament-st., Nottingham

Devon: Filtration plant, The Permutit Co., Ltd., Gunnersbury-av., W.4.

Essex: Building work, Peter Lind & Co., Stratton House, Stratton-st., W.1.

Glos.: Filtration plant, Holborrow & Sons, Ltd., Tetbury, Glos.

Hants: Building work, W. E. Chivers, Devizes, Wilts.

Herts: Building work, Peter Lind & Co. Stratton House, Stratton-st., W.1.

Lancs: Building work, J. W. Jones & Sons, Ltd., 158, Allerton-rd, Liverpool, 18.

Lancs: Heating and h.w. services, John Blake, Ltd., Oakenshaw Works, Accrington.

Lancs.: Roofing, Everseal Products, Ltd., 16a, Station-parade, Northwood, Middx.

Lincs: Elec. lighting, Phœnix Electrical Co. (London), Ltd., 105, Jermyn-st., S.W.1.

Middx.: Building work, Trollope & Colls, Ltd., 5, Coleman-st., E.C.2.

Norfolk: Building work, Eastern Counties Builders, Ltd., 7, The Close, Norwich.

Northumberland: Building work, G. C. Hadden & Hillman, Ltd., 127, New Bridge-st., Newcastle-on-Tyne; Wm. Arnott McLeod & Co., Ltd., Russell-rd., Edinburgh.

Surrey: Building work, Limpus & Son, 7, Kingston-hill, Kingston, Surrey.

Staffs: Building work, John McLean Builders, Ltd., Coven, Wolverhampton.

Wilts: Building work, W. E. Chivers, Devizes, Wilts; John Knox (Bristol), Ltd., Coronation-rd., Bristol, 3.

Wilts: Elect. ltg., power and overhead distribution, Tamplin & Makovski, Bell-st., Reigate.

Worcester: Building work, W. T. Nicholls, St. Paul's-rd., Gloucester; W. H. Gaze, Kingston-on-Thames, Surrey; The Demolition & Construction Co., S.W.1.; G. E. Wallis & Son, 231, Strand, W.C.2.

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Warwick: Building work: Thos. Bates & Sons, Ltd., Hornchurch, Essex.

England and Wales: Building work, Sir R. McAlpine & Sons, 80 Park-la., W.1.; W. E. Chivers & Sons, Ltd., Devizes, Wilts.

¶**London (War Dept.).**—Works contracts placed by War Dept. for week ended October 3:—

Haddingtonshire: Miscellaneous work, Wm. Paris, Jun., Broxburn, Haddingtonshire.

Renfrewshire: Miscellaneous work, K. D. Timber Construction Co., Ltd., Glasgow.

Ayrshire: Hutting (erection), Houston & Young, Ltd., Barrhead, Renfrewshire.

Dumfries-shire: Miscellaneous work, Wm. Jackson, Edinburgh.

Yorks: Building & hutting (erection), Wm. Drabble & Sons, Mosborough, Derbyshire.

Yorks: Miscellaneous work, H. Johnson & Sons, Farsley, Nr. Leeds.

Yorks: Hutting (erection), Walter Thompson, Northallerton.

Lincolnshire: Hutting (erection), S. Cartledge & Son, Ltd., Grimsby.

Notts: Hutting (erection), H. Rouse & Son, Mansfield Woodhouse, Notts.

Isle of Man: Building work, M. Clarke, Douglas, Isle of Man.

Anglesey: Miscellaneous work, R. A. Buckle, Prestatyn, Flints.

Brecknockshire: Roadwork, The General Asphalte Co., Ltd., London, S.W.1.

Glamorganshire: Hutting (erection), Wilsons (Bridgend), Ltd., Bridgend, Glam.

Northants: Miscellaneous work, R. Lancaster & Sons, Wembley, Middx.

Oxfordshire: Miscellaneous work, A. J. Sadler, Chesterton, Bicester; A. Groves & Son, Sutton-u-Wychwood, Oxon.

Beds: Hutting (erection), Henry Martin, Northampton.

Bucks: Miscellaneous work, E. & J. Cotton, Iver, Bucks; Fleet & Roberts, Ltd., Aylesbury; Rust & Ratcliffe, Chesham, Bucks.

Herts: Miscellaneous work, J. L. Glassock, Bishops Stortford.

London: Miscellaneous work, Truett & Steel, Ltd., Thornton Heath, Surrey.

Kent: Hutting and roadwork, W. P. Woodgate, High Halden, Nr. Tenterden.

Surrey: Hutting (erection), R. Holford & Co., Guildford.

Sussex: Roadwork, A. H. Edwards & Sons, Ltd., Chichester.

Hampshire: Miscellaneous work, J. Hunt, Ltd., Gosport.

Hampshire: Hutting (erection), A. J. Dunning & Son, Weyhill, Hants.

Dorset: Hutting (erection), Mears Bros., Contractors, Ltd., Blandford.

Cornwall: Miscellaneous work, A. N. Coles, Contractors, Ltd., Plymouth.

Loughborough.—Erection of sub-station, for T.C. W. Granger, B.S.: *W. Moss & Sons, Ltd., Queen's-rd., Loughborough.

Manchester.—Works, for T.C. Painting prefabricated huts at Benchill and Brownley Green, Wythenshawe: *Jones & Jackson, Ltd., 28, Oxford-rd., Chorlton-on-Medlock; structural alterations for adaptation of premises for war-time day nursery at Didsbury: *W. A. Costello, Northenden-rd., Sale, Ches.

Newcastle-on-Tyne. — Adaptation of Delaval House farm as war-time day nursery, for City Council. R. G. Roberts, City Architect, 18, Cloth Market: *William Hall (Contractors), Ltd., D wentwater-rd., Gateshead, £2,033.

Newcastle-under-Lyme. — Works, T.C. Erection of garage for accommo tion of motor vehicles: *Stephen He & Son, May-st., £380. Erection sanitary conveniences at Hassell-st. c park: *Pattison & Hall, Higherland.

Warrington. — Erection of ch nurseries at School Nursery Centres, T.C. J. Y. Hughes, B.S., Munic Offices, Bank Park: *Daniel Cooper, L Clarence-st.; *W. & A. Ashton, 4, Bri Foot; both of Warrington.

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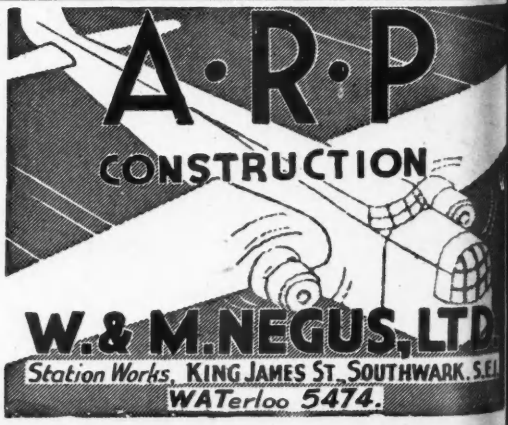

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